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• TVRO ECONOMICS 101A

THE TWICE PER MONTH BUSINESS JOURNAL OF TVRO

COOP'S SATELLITE DIGEST



SEPTEMBER 15, 1985



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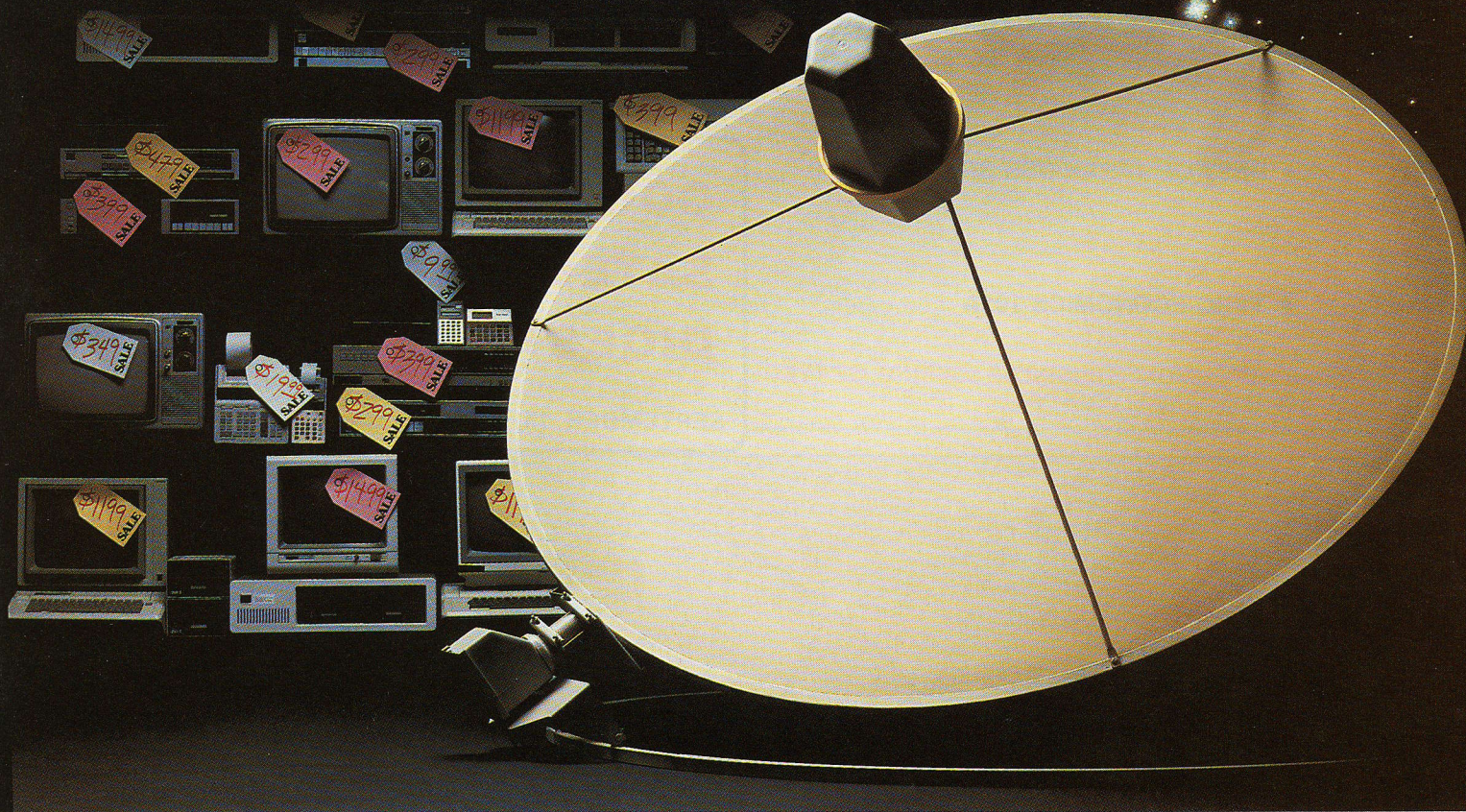
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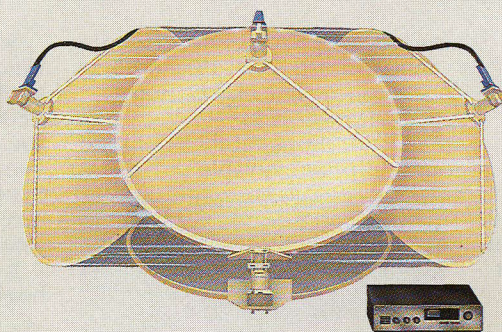
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SEPTEMBER 15, 1985

PROGRESS

A funny thing happened in Nashville; an entire industry reached down, grabbed itself by the bootstraps and yanked up.

For as many years as there has been a TVRO industry, a handful of people (often, the same handful of people) has pretty much 'run' our industry. There has been an 'inside clique' of people, revolving around the top spots on the trade association's Board of Directors, which has set or squashed policy which ultimately affects us all. These 'movers and shakers' of TVRO have had things pretty much 'their way' largely because opposition to their dictums has been disorganized and poorly implemented. And the industry has inter-married itself so frequently and so many times that it has often been difficult to determine where the 'parents' were.

Dealers, the ultimate 'retailers' of TVRO system hardware, have seldom been given a 'fair shake' nor 'share' of the policy and planning process of TVRO. **However**, dealers have seldom **asked for** (and even less frequently 'demanded') a say in that policy making process. So in truth, dealers have received exactly what they deserved; an insignificant portion of a large pie, a pat on the head, and a token 'cookie' to chew upon.

As our report on Nashville in this issue relates, the dealers as a body may be slowly awakening to their real roles in TVRO. Dealers may finally be coming to grips with the reality that **they** must take command of their own futures and they must **work for** their fair share of the 'policy pie'. In other words, it will not be handed to them on a platter all neatly gift wrapped with a tidy bow.

Retail business is exceptionally good at the moment. Economic pressures on dealers have never been worse. There is a 'window' of time here, **now**, when dealers can step back two steps and re-assess their roles in the TVRO industry of the future. Growing as fast as we are, this may well be the last opportunity we will have to stand back, take stock, and formulate

a unified plan for dealer action. If this opportunity is missed, I believe we may never have such an opportunity again. If you are a dealer and you believe your own business is being dictated by policies adopted by 'others', this may be your best **(and last)** opportunity to do something about it.

TIME For Change

Two people in our industry got me pointed in the 'right direction'; two unlikely people. **Steve Tolin**, a publisher of sorts, and **Jim Bunker** of M/A-Com. Bunker started it.

While sitting in Massachusetts having dinner with Jim and others back in May, it was suddenly very clear to me; **"These guys are going to screw up scrambling SO BADLY that our industry will never 'look' the same again."** The 'same' meant "as before they screwed it up". Some would consider that 'screwing up' a part of our natural evolution.

Steve Tolin provided the rest of the puzzle. Walking down a hallway in Tulsa at the June trade show, he did one of his famous 'Tell me your inner-most secret' charades by yelling **"I hear CSD is being sold"**. That was one of the furthest things from my mind at that moment. I shot back **"Who would want to buy CSD anyhow???"**. His response, not precisely remembered, was that 'CSD was Coop' (or perhaps it was 'Coop is CSD') and 'without Coop CSD isn't worth anything'. My non-verbal response was 'It probably isn't worth very much WITH Coop'. But I didn't utter those words, I just smiled.

If M/A-Com's Linkabit was going to make a terrible mess of TVRO (it was), the type of appeal we as an industry would have for those yet unsold millions of underserved (by direct or cable TV) homes would also be changing. But how, in which direction? What sort of things would have to be 'in the sky' to keep upwards of 750,000 new homes buying TVROs each year for say the next five years? And after you made a list of the obvious programs-from-the-sky you would like to see 'stay there' or 'continue to be available', how would you go about getting them there? Not without big bucks, or plenty of clever deal making. You **could** raise the bucks, but as CBS learned with their 'Cable Channel' a few years back, you could lose upwards of

MID-MONTH COMMENTS/ continues on page 30

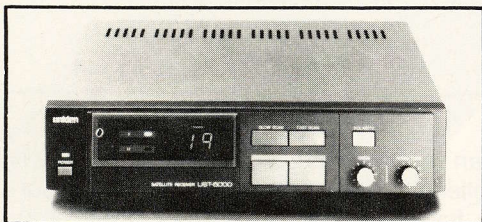
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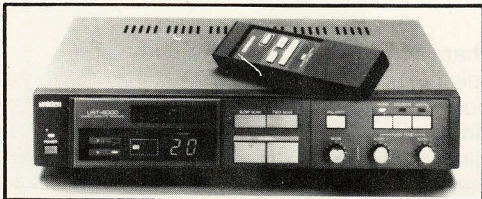
DOMESTIC EDITION

COOP'S SATELLITE DIGEST published by Triple D, Incorporated (P.O. Box 2384, Shelby, NC 28151-2384; Ph. 704/482-9673.) All advertising, subscription requests should be directed to Triple D Publishing. **This is the last issue of CSD/2**, published on the 15th of each month since August 1983. Effective with October, 'master publication' CSD will be issued on the 15th of each month, combining **CSD plus CSD/2**. CSD subscription rates are \$60 per year within US zip-coded areas, \$65 in US funds in Mexico and Canada and \$75 per year elsewhere. Outside of USA, delivery is via AIRmail. Editorial material and letters **ONLY** should be sent to CSD Editorial, P.O. Box 100858, Ft. Lauderdale, FL 33310 (305/771-0505). COOP'S SATELLITE DIGEST is protected by US and foreign copyrights and any reproduction without the expressed permission of Triple D is prohibited. Second Class Postage paid at Shelby, NC and additional post offices. Application to mail at second class postage rates is pending at Shelby, NC and additional offices.

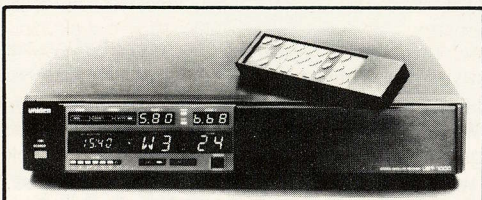
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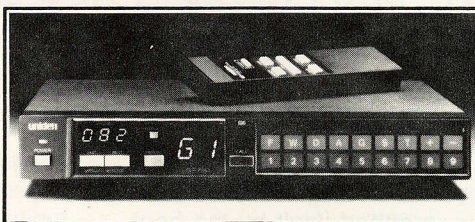
UST 5000 Block receiver offers LED channel display, automatic polarity control, slow and fast scan.



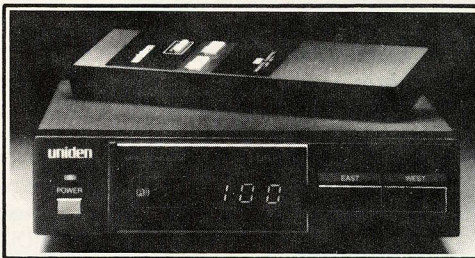
UST 6000 Block receiver features expanded audio format and fine tuning skew adjustments.



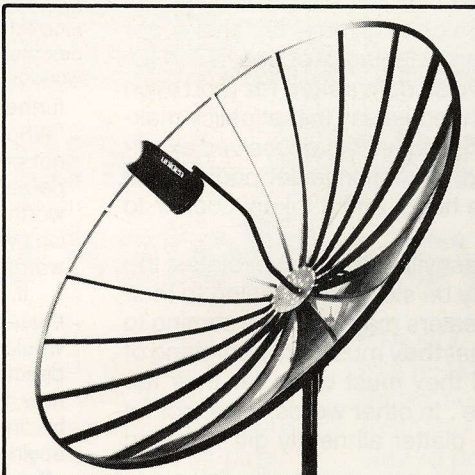
UST 7000 Block receiver features IR remote built-in programmable antenna control accommodating up to 81 satellite positions in memory.



UST 730 Antenna Positioner features built-in programmable antenna control and Opto-Interrupt circuitry.



UST 710 Antenna positioner offers compact styling, manual east west control and 3 digit LED readout.



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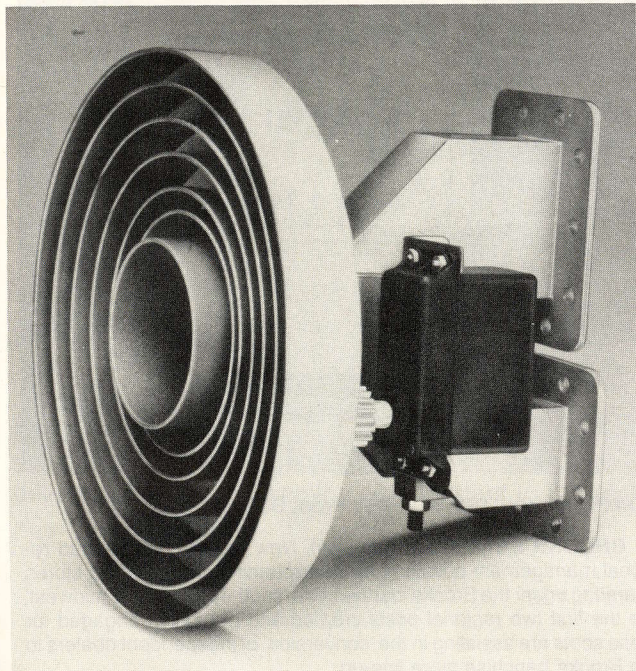
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FRONT END OBJECTS

BOMAN INDUSTRIES (9300 Hall Road, Downey, California 90241; 800/352-2553 within California and 800/421-2533 outside of California) has introduced LNA-410, available with 42 dB of gain and noise temperatures from 55 to 100 degrees Kelvin. All units have certified test data covering power output capability, noise figure, phase deviation, gain, group delay and gain flatness; 5 year warranty is standard. Boman has also announced 'Ortho-Skew'TM, a dual-polarity (vertical plus horizontal) feed for simultaneous reception from both polarizations, with skew adjustment on both polarizations of up to 30 degrees. And, Boman has announced the 'U'LNA (ULNA), for 'ultra-low-noise amplifier'. Available with 40 dB gain (typical), the units have noise figures between 45 and 65 degrees Kelvin.



ORTHO SKEW has 30 degrees twist

FOCII ANTENNA SYSTEMS, INC. (2730 SW 57th Street, Topeka, Kansas 66609; 913/862-2703) has a pair of new antenna cables for direct burial applications. 'Focii Block' is a cable swept-tested to 1500 MHz with a run of RG-6/U cable (foam dielectric), shielded 18 gauge polarization wires, a pair of 14 gauge motor wires and a trio of shielded (position) feedback wires. 'Focii Choice' is a twin-coaxial cable designed for either 70 MHz or block systems, with polarization and actuator control wires included. Dealer information from 800/358-3089 (extension 265).


MICROWAVE FILTER COMPANY (6743 Kinne St., E. Syracuse, NY 13057; 800/448-1666 or 315/437-3953) has a pair of books and a video tape produced as learning aids to assist dealers in understanding and resolving problems with terrestrial interference (TI). 'ASTI' is a complex study course in the avoidance and suppression of terrestrial interference. 'Use of Artificial Shielding' deals with building natural shields to isolate the TVRO antenna from interference sources. 'TI Seminar' is a videotape dealing with the same overall subject.


PAULLIN INDUSTRIES (1446 State Route 60, Ashland, Ohio 44805; 800/821-7384 or 419/289-2228 in Ohio) has a wide series of weather protection and antenna accessories newly available to TVRO dealers. Included are five LNA and LNA plus downconverter 'boots', downconverter alone boots, motor boots, actuator weatherproofing boots, universal limit switches, and feed horn alignment tools.

ANTENNA Abberations

ALUSAS (P.O. Box 666, West Hartford, Ct. 06107; 203/236-

NEW PRODUCTS/ SERVICES/ EVENTS

 **Boman 45° K**

 **M/A-Com at SVS**

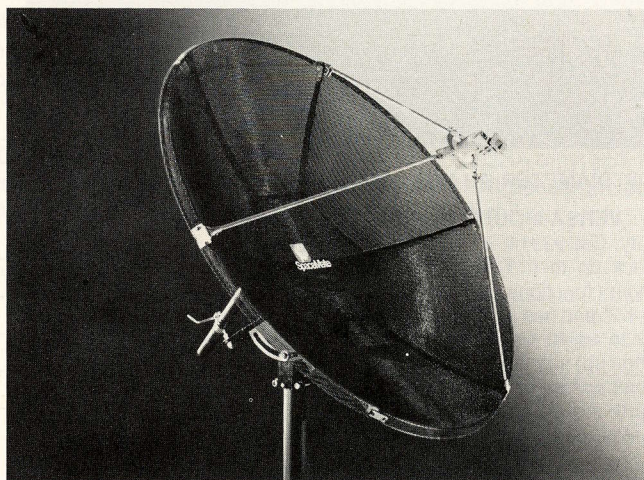
1613), **formerly NSM Corporation**, reports their first quarter of business activity in the TVRO field has 'exceeded all expectations and projections'. The firm offers dish mounts and center hub assemblies at the OEM level to antenna fabricators/packageers. The firm has a business background in aluminum extrusions and fabrication including aluminum die casting.

CHANNEL MASTER (P.O. Box 1416, Smithfield, NC 27577; 919/934-0711) has begun shipping a new six-foot perforated aluminum antenna designed for the urban/suburban market where space restrictions will not allow 'full-sized' antennas. The all black antenna is designed for rooftop mounting and is available through the CM network of more than 400 distributors nationwide.

KAUL-TRONICS, INC. (Route 2, Box 637, Richland Center, Wi. 53581; 800/826-KAUL nationwide and 800/826-NOVA in Wisconsin) is backing their Trans-10 mesh antenna with a five year limited warranty. The firm reports the antenna has been certified by the McDonnell-Douglas Corporation for 2 degree spacing. Assembly time is said to be approximately one hour.

RAYDX SATELLITE SYSTEMS, INC. (9 Oak Drive, Silver Springs Shores Industrial Park, Ocala, Florida 32678; 904/687-2003) announces their six foot 'Raydish'TM is now available as an expanded 8 footer. In the 6 foot configuration, the dish has an f/D of .38. The dish is available with a low cost AZ/EL mount or a traditional polar mount. Shipments began in August.

THE STOLLE CORPORATION (1501 Michigan St., Sidney, Ohio 45365; 513/492-1111) says their six foot 'SpaceMate'TM antenna is the first smaller size dish to be offered by a 'major' corporation. Stolle is a subsidiary of Alcoa, the largest aluminum producer in the world. SpaceMate is a perforated aluminum, segmented dish system with a polar mount which ships in a pair of (UPS) cartons. The firm has the capacity to produce more than 10,000 of the antennas per month.



SPACEMATE By Stolle Is 'Major'

U.P. SUPERIOR SATELLITE DISH MANUFACTURING (1651

17.4 Road, Escanaba, Michigan 49829; 906/789-1027) has announced a 15 year warranty on the firm's full line of TVRO antennas, including their UPS-shipped mesh surface line. The warranty is 'full' coverage for the first ten years and then reverts to a pro-rata basis for the last five years of the 15 year coverage.

USG INDUSTRIES, INC., through their metal products division, has expanded their TVRO field activities. The firm has been supplying mesh surfacing to TVRO antenna OEMs for five years. With the new expansion, USG will strengthen its activities in TVRO. Details from Spectrum Consulting Services at 203/928-6264.

REYNOLDS METALS COMPANY (Richmond, Virginia et al) is supplying .125 and .090 gauge sheet aluminum to DH Satellite (Prairie du Chien, Wisconsin) for the Wisconsin firm's spinning of TVRO antennas. Reynolds supplies precut aluminum in 108, 96, 72 and 60 inch diameter circles which DH then spins into the parabolic shape. DH reports their capability is as great as 1,500 antennas per day and a nine foot dish requires 3 minutes and 14 seconds of spinning time. Reynolds estimates that it supplies 35% of the aluminum material used in TVRO antennas.



108" DIAMETER DH Dish Spinning On Mold

VERSA-MOUNT INDUSTRIES, INC. (P.O. Box 529, Big Bear City, Ca. 92314; 714/585-8947) has developed support literature to back up their T-Bar TVRO antenna mount system. The antenna mount functions with a range of outside pole diameters from 2-3/8" to 4-1/2" and has a unique 'truing' adjustment system to allow the installer to adjust his dish alignment even if the mount pole starts out (or ends up) slanted. This adjustment system also allows the installer to compensate for dish alignment in regions of North America where earth movement (due to the constant shifting of the earth's Tectonic plates) causes a previously-tracking-dish to mis-track.

DISTRIBUTOR Doings

BOMAN INDUSTRIES (9300 Hall Road, Downey, California 90241; 800/352-2553 within California and 800/421-2533 outside of California) has packaged a 'cash and carry' concept for TVRO deal-

ers. The package consists of a SR-1600 satellite (stereo) receiver with block downconverter, a 65 degree low noise amplifier, electronic polarizing system with servo motor, a 120 foot length of RG-6/U cable, A/B switch for switching between terrestrial and satellite TV services and instructions. The package is designed to provide the dealer with everything he requires to complete an installation, less the dish and drive. Packages available also include 85 and 100 degree LNAs.



COMPLETE SYSTEM In A Box From Boman

BROOKS SATELLITE (Matawan, New Jersey) has created regional management positions for its expanding line of TVRO stores operating under the Brooks' banner. The 'southeast' and the 'midwest' are the first two regional posts created and personnel engaged for these spots are assisting in the 'conversion' of independent dealers to the Brooks franchise store line-up.

DELTA SATELLITE CORPORATION (One Echo Plaza, Cedarburg, Wisconsin 53012; 414/375-1000; 800/558-5582) has opened a new warehouse facility in Minneapolis. Headed up by **Larry Meissner**, the Minneapolis area facility is located at 8576 Highway 101, Shakopee, Minnesota 55379 (612/445-4500). It will service the region from North Wisconsin and parts of Iowa through Minnesota, and North and South Dakota. Delta handles more than 20 major brands of TVRO hardware including Uniden, Drake, STS, General Satellite, Draco, Starduster, Houston Tracker, Anderson Scientific, DX Antenna, Boman, California Amplifier, Chaparral, Prosat, and Janeil. Two additional outlets are planned by the end of 1985.

ECHOSPHERE CORPORATION (1925 West Dartmouth Ave., Englewood, Co. 80110; 303/761-4782 plus four other locations nationwide) is offering dealers a cooperative (co-op) advertising program. By purchasing more than \$10,000 in TVRO hardware, a dealer earns co-op credits with Echosphere paying up to 75% of the advertising expenditures. Echosphere has also released their 1985/86 'Winter Catalog' covering their complete line of products from antennas to connectors and everything in between. A free copy is available to dealers by calling 800/521-9282.

Echosphere is also now handling the Winegard line of TVRO antenna products including the Mini-Cepter six foot antenna. And, Echosphere will now be revising its 'Confidential Dealer Pricing List' every two months. Products are broken down by categories and this allows dealers to create their own system packages.

MID-TEC COMMUNICATIONS (Rt. 2, Box 65, Richland Center, Wisconsin 53581; 608/647-2014) has opened a new 'service center'

NEW PRODUCTS/ continues page 26

THE END.

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THERE WILL BE NO MORE.

EFFECTIVE WITH this issue of CSD/2, we close out the two years of this mid-month publication. YES, we know that thousands of TVRO dealers have come to rely upon the concise, in-depth reporting style of CSD/2 and the rapid delivery of timely information so important to the profitable development of your TVRO business.

BUT WAIT: **There is an answer!**

EFFECTIVE WITH the month of October, CSD/2 and CSD (issued on the 1st of each month since October of 1979) will merge; the 'survivor' will be called **CSD** (hey; it WAS first!) but the surviving publication date will be the **15th** of each month. Existing subscribers to CSD **plus** CSD/2 will have their subscriptions extended on a pro-rated basis to accommodate the termination of CSD/2. Those thousands of dealers who receive 'gratis copies' of CSD/2 **only** (i.e. no CSD on the 1st), courtesy of the SPACE dealer program, must open new subscriptions to CSD **to continue receiving** this publication since CSD is available by mail subscription only. You may call today with your VISA or Mastercharge card handy (704/482-9673) to enter your new subscription.



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NASHVILLE NUTTY-NESS NOT NOSTALGIC

DEALER Revolt?

"**What we are looking for** is a fair marketplace handling of the relationship between us (the dealers), and the distributors and manufacturers. **We must have protected territories** so that we can be successful in handling a product line and so that we can afford to spend money on advertising our products and services. Dealers who have been in business for several years have spent a fortune on local advertising, pushing particular product lines which we are or were handling.

"**As the marketplace has grown**, the distributors have decided to go out into the marketplace and set up new dealers all around us. Now I have thirty dealers in my general market area all handling the product lines which I 'pioneered' in my region. This has placed me in the untenable position of not having an 'exclusive' on the product line, of having established the product line in my area, and now having to watch people with lower overhead selling out of their garages offering my products for less than I can afford to sell it for."

Speaking is **Jerry Fischette**, a member of the SPACE Dealer Board of Directors. Fischette is telling it 'like it is' to the full SPACE Board in Nashville and he is asking for understanding, and help, from the manufacturers and distributors whom the 'Dealer Board' feels may be undermining their own industry with 'wide open sales policies'.

"**The feedback I hear from distributors and manufacturers** is that 'everything is rosy', equipment sales have never been higher, and everyone is doing great. Sure, the products are still being sold, but the short-sightedness of this 'open selling' approach is destroying the established, dedicated, and qualified dealer. I predict there will be a 'ripple effect' here; we have qualified dealers who are leaving the industry, throwing in the sponge. They can no longer compete with the onrush of part-time dealers who sell out of their garages, have very little or no overhead, and who believe a profitable sale occurs when they pocket \$100 or even less for a four hour sale and install."

Fischette was bringing a growing problem to the attention of the full SPACE Board, and his warnings were already too late. Of the 20 members of the SPACE Dealer Board selected one year ago, five have left business and even in the 'select group of 8' who represent the Dealer Board within the main board, there have been several business casualties.

"**There is a problem here** in the basic premise of TVRO hardware distribution. The only profit a dealer has is when he sells a system. There is no 'software' or 'aftermarket' in TVRO; the dealer must be able to make a profit, after covering both his

"(TVRO) built a better mousetrap. We don't have to buy all of the programming; we can watch what we want to watch, when we want to watch it. This is our birthright because we invented it. We need programmers to make their own judgement as to whether they want to scramble their signals or not. It is unconscienceable that the cable operators, CATA, should pass a resolution telling cable programmers to scramble all of their basic signals." (Rick Brown to Steve Effros)

cost of goods and his direct and indirect overhead, to stay in business. When distributors sell to virtually anyone, at more or less the same price, the established dealer with service vehicles, a staff, office and advertising overhead is being placed at a tremendous dis-advantage. It has become so easy to walk into a distributor and lay down cash money for a system, and walk out with the hardware that people who have other jobs to support themselves are doing systems in their spare time and on weekends. **From their perspective**, a \$100 'profit' for a half-day's work is adequate. And this is destroying the very dealer foundation which this industry depends upon for volume sales and the long pull." Speaking here is Dealer Board member **Tom Harrington**, the 'senior member' and 'elder statesman' of the TVRO dealer world.

"**We are not looking for special favors**. We simply want a fair and equitable way of being treated by the distributors and manufacturers. We want them to recognize that dealers who depend upon TVRO as their sole revenue source have a much bigger and a longer term 'stake' in handling TVRO products than do these 'quick-in' and 'quick-out' weekend installers. If **there is** a move to 'manufacturer-direct' dealing, it is the result of the short-sightedness of distributors. We, the established dealer base who works at TVRO full-time, have a vested interest in any product line we carry. When we make a commitment to handle a product, that commitment includes **advertising** the product name, **developing** specialized installation and **testing** and **repair** techniques, and **standing behind** the product in our area. When we advertise a system featuring a specific product for \$3,500 installed, it galls us to find someone with no commitment to the product undercutting us by \$200 or \$500 down the street operating out of his garage on weekends" Fischette continued.

The master SPACE Board was little prepared for the formal presentation from the Dealer sub-board. In a board meeting best remembered for its lack of interesting topics or conflict, the dealer's portrayal of their plight caused everyone in the room to sit up in their chairs and take notice. Distributor and OEM members of the big board mis-interpreted **part** of what they heard. Focusing on the dealer plight, **Walter Everett** of SRS pondered whether the SPACE 'Dealer Certification Program' might not be a salvation for the dealers. Everett was suggesting that if the dealers were certified, and they could 'advertise' and 'promote' their certification, and this in turn was supported by a SPACE funded 'consumer awareness advertising program' which had as an objective directing consumers **strictly to 'certified dealers'; 'might that not**

help'?

Methods of distribution 'control', while on the top of each attendee's mind and the tip of their tongues, was not a 'suitable topic for discussion' however as SPACE Chairman **Taylor Howard** protested during an exchange between Everett and Fischette. "**Pricing, distribution policies, anything that touches on this trade association being a party to the setting of trade rules is against the law to discuss**" noted Howard. The problem, it seemed, would not sort out in an 'official forum' because there are, indeed, legal constraints which a trade association must observe to avoid 'anti-trust' implications.

"**As a trade association**, I realize that SPACE cannot dictate policy as to how a manufacturer or distributor shall distribute product. But as a SPACE Dealer Board member, one of my goals 12 months ago when joining the Board was to interface with manufacturers and distributors to let them know what was really happening out there in the marketplace. I am now convinced that this is a very serious issue and if it is not addressed, I believe there is not going to be a serious dealer base in this marketplace. **I am a serious retailer**, and I own two stores. I sell other consumer electronic products and in no other product line or type I handle in my stores is the distribution of product handled like it is in the TVRO industry. One of

the biggest problems in my area is that consumers are **afraid to buy** systems. So many of these part-time dealers have folded up and gone out of business, leaving their customers without service or product support, the consumers who **want to buy** are reluctant to buy. **They simply do not dare to invest in TVRO** at this time because it is obvious to the intelligent consumer that the dealer system we have is very unstable.

"**In my audio and video lines which I sell**, there is no way I could have gotten the lines or franchises I have without being a legitimate retailer with an established storefront operation. Virtually all of the lines I carry outside of TVRO were acquired **after** the manufacturer's sales representative came to my store, checked me out, and determined that I was a suitable representative of their name. **Nobody does that in this industry**; all it takes is a telephone call to get anything you want, from any place in the country.

"**The equipment goes out** from distributors to anyone who has a business card. If the serious dealers are going to stay in this business, this practice has got to change!" So added Dealer Board member **Wayne Morong**.

"**I see two distinct and separate problems here**" responded SPACE attorney **Rick Brown**. "First we have the question of how do we **educate** the public about dealing with



"DO WE HAVE a picture???"



BOOTH selling to other booths/ cable and fittings, available to suppliers setting up their own booths for the show, did a brisk business.

qualified dealers. This is a proper topic for discussion and we should implement such a study immediately. But second, as a trade association, there is no way we can force any kind of 'marketing plan'; that is between a willing buyer and a willing seller. (If we try to address that question), we will get ourselves in a lot of trouble. However, there is nothing wrong with trying to increase the sensitivity of the people in this room (distributors and OEMs) to your plight and how you are suffering. SPACE now has a Dealer Board, a Distributor Board and a Manufacturer Board. Without doing it in a coercive manner, and with counsel present, I think there can be some dialogs and exchanges of information without talking about particular brands or without talking about particular policies or without talking about pricing. I believe this sort of discussion ought to be encouraged; **I hear what you are saying and I am frightened for the industry.** You are saying that you may be going out of business . . .".

"As long as we have established the urgency that as a group sitting here on the Dealer Board, and speaking for the more than 2,500 dealers whom we now represent, we probably cannot wait until the next trade show (1)" responded Fischette.

There was a prophetic irony in the message from the Dealer Board. It was at the Nashville trade show just one year ago that the SPACE 'big board' accepted the need for a Dealer Board, separate from the big board but represented on the big board. Those first-year 'pioneering dealers' who volunteered their time and talents to make a 'go' of the revitalized SPACE dealer program now found themselves caught between their own successful first year as members of the Dealer Board (pushing SPACE dealer membership from fewer than 500 to more than 2,500 in less than a year), and their own personal failures as business people retailing TVRO in that same year. In a direct sense, as SPACE dealer membership has risen, their own economic viability as dealers has become endangered. Several reflected after the Board meeting **"We may never attend another meeting as representatives on the Dealer Board; we think there is less than a 50-50**



QUALITY SPOKEN/ Scientific-Atlanta, appearing in the marketplace at a time when established, store-front dealers are looking for an answer to readily-available discounted priced goods, may have an appealing program with their direct-to-qualified dealer program.

chance we can still be in business by next February."

The effects of widespread, unstructured distribution of TVRO products began to be evident early in 1985. Dealers who have been established several years have reported, consistently to CSD, that while **the industry** may be undergoing rapid expansion, **they are not.** In a survey sample involving more than 250 dealerships (all with storefront operations), CSD found the average growth in 1985 was less than ten percent and with more than 50% of those surveyed, 1985 was actually lagging behind 1984 in retail system sales.

At least one TVRO supplier now re-entering the business recognizes the nature of the problem. **Scientific-Atlanta**, the first seller of home TVROs (**HomesatTM** systems in 1979) has adopted a direct-to-authorized dealer sales format with 'territorial rights' to each dealer who qualifies for S/A products.

"I have been in this business for five years now" noted Dealer Board member **Frank Abruzzo** "and during the last seven to ten months, I have found myself consistently competing with my own products and my own advertising. I am in the process of dropping several lines which I have backed to the hilt in South Florida simply because I cannot and will not compete with the same products when they are marketed by people who believe a \$100 bill is adequate compensation for a half day to a full day's 'vacation' from their full-time job in some other field."

If the 'message' delivered to the SPACE 'big board' by the members of the Dealer Board was profound and pointed, it had little effect on the exuberance and upbeat nature of the Nashville show proper. In a direct sense, the record-breaking crowd of 15,500 announced by **Rick Schneringer** was 'additional proof' that the plight of the full-time dealer was indeed real. A jam-packed auditorium at the Taylor Howard opening session raised their hands in unison when Taylor asked his perennial opening session question **"How many are attending their first trade show here?"** (more than 70% said they were). Taylor's affirmative response to the high percentage of 'first-timers' indicted to many established dealers that they still have a 'selling job' to do to appeal to the 'sensitivities of the big board's leadership' in this crucial (to dealer survival) area.

1/ The next SPACE/STTI trade show is scheduled for February 19-21.



The admission fee charged to attend the show also caught some flack from the members of the Dealer Board, privately. **'When I hear someone complaining that he had to pay \$15 to get in, I know we have another weekender in the aisles-ways'** suggested one. Cable and broadcasting trade shows, conducted for members of their respective industries, routinely charge upwards of \$200 to attendees, more if they are not members of the trade association(s) hosting the shows. Bigger charges are considered 'filters to keep out the unqualified' of course and some have been suggesting a similar policy for TVRO trade shows. **'If we kept these weekend operators out of the trade shows,** if we actually kept them from getting their hands on our pricing sheets and encouraging them to find 'two friends' to go with them in buying three-system-minimums from their local distributor, we might slowly turn this around' suggested one Dealer Board member.

"A \$200 or higher entrance fee is a lot of money and I'd have to think about it for a few minutes" responded one full-time dealer. "On the other hand, what would I rather do; **pay \$200 to attend a trade show** or watch a sale lost for a \$200 pricing differential I could not match because of my storefront overhead? **I guess I'd rather pay \$200 to attend the trade show and see these part-timers kept out of the marketplace.** Competition is a way of life, but why should we be subsidizing these guys who are here today and gone tomorrow by letting them into our distribution system for a lousy \$15 entry fee? It just does not make any sense!"

BOOTHs have turned into miniature cities with construction time measured in 'man-days' rather than 'man-hours'. Luxor shown here.

VIEWERS 'Which'?

If the plight of dealers did not sink in thoroughly at the 'big board' level, something called **'Viewer's First National'** did. VFN is a recently announced private corporation funded by industry OEMs **Bud Ross** (Birdview), **James Rothbarth** (STS), industry distributor **Gus 'Sandy' Wirth** (Delta) and SPACE counsel **Richard L. Brown**. VFN has negotiated a contract with minor-league premium programmer **SelectTV**. The VFN/Select contract gives VFN an exclusive 15 year 'right' to market SelectTV programming in the **home TVRO** world.

VFN has until May 1st (or until Showtime/The Movie Channel scramble; whichever comes first) to **select** a scrambling system. VFN has attracted considerable attention because its private ownership does include prominent members of the industry including the industry's leading 'counsel'. The **NCTA** (National Cable Television Association) has attacked Viewer's First on the grounds that Rick Brown cannot (NCTA claims) **'fairly represent SPACE in the scrambling issue when he, personally, is a part-owner of a marketing program which will itself market a scrambled premium channel.'** This potential conflict has caught the attention of others as well.

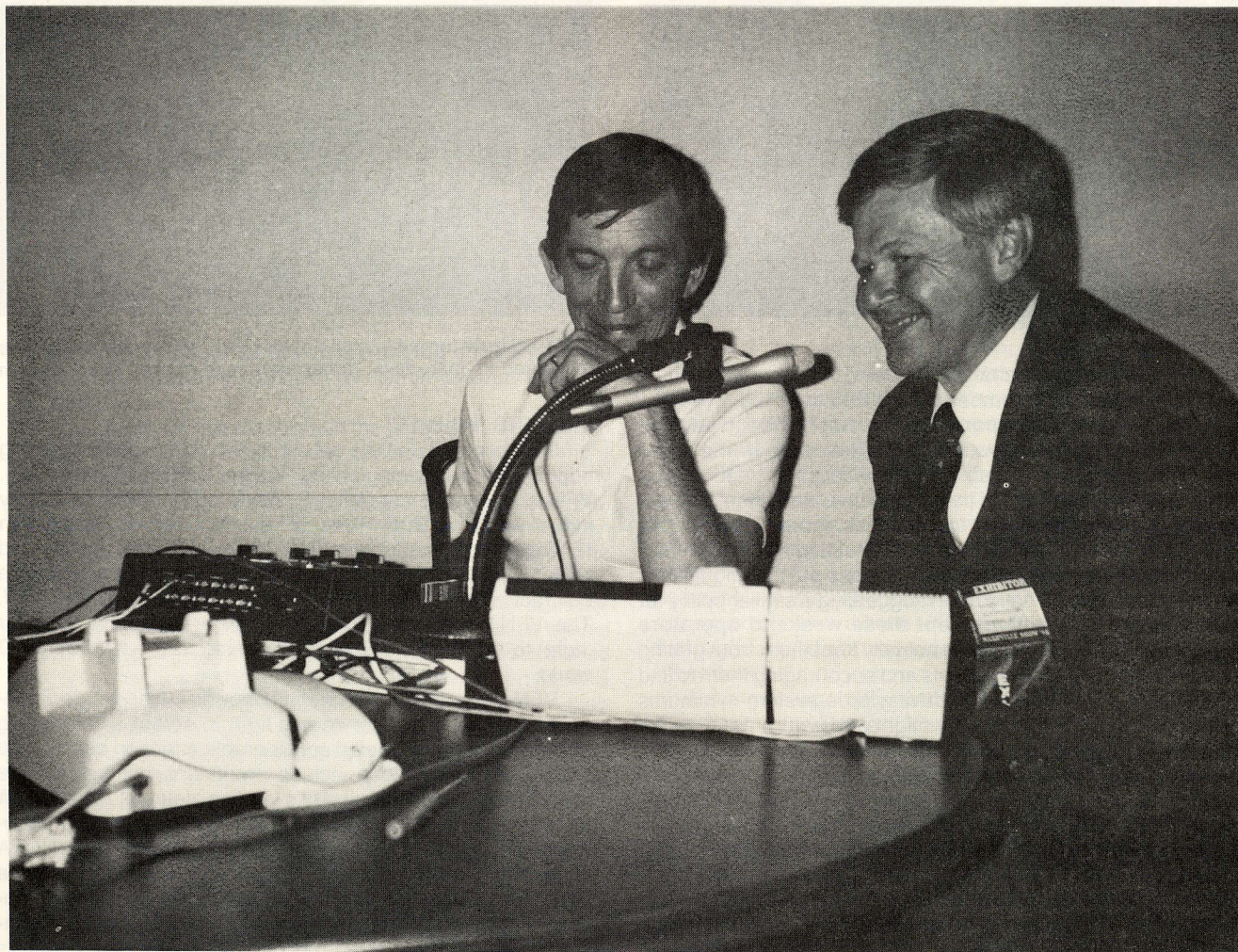
Attacked by the NCTA in the cable trade press prior to the Nashville meeting. Brown and others within Viewer's First

utilized the Nashville gathering as an opportunity to elicit **support** for Viewer s First from the TVRO industry. The matter went first to the Space Dealer Board where the dealer representatives were asked to 'sanction' Viewer s First. The Dealer group found this a difficult issue to handle but finally did grant 'conditional sanction' ("We see no conflict, **at this time . . .**") to VFN. Next stop for VFN was a special meeting called by Taylor Howard just ahead of the full board meeting. Addressing 'Industry Leaders' in a special session called to present the VFN story, Howard and **Chuck Hewitt** provided a forum for discussion of the Viewer s First 'issue'. This meeting was attended by more than 200 people, including members of the trade press and suppliers not sitting on the 'big board'. A significant number of 'industry leaders' attending the special Howard-called meeting did not leave the room convinced that 'the appearance of conflict' on the part of Brown in particular was settled. Later on Sunday, the full board would, nonetheless, 'ratify' the Dealer Board sanction of both VFN and Brown's role in the new scrambled service. As Brown told the first meeting, "**You just happen to have an attorney who is an entrepreneur . . .**".

Among those who left the VFN meeting on Sunday dis-

pleased with the decision not to 'censor' Brown for his involvement was new industry 'media-star' **Keith Lamonica** of 'FM AMERICA'; a daily satellite distributed 'talk show' which has risen to meteoric heights since its early July start because of Lamonica's engaging style and his ability to stack up hundreds of call-ins each evening in a three hour stint (2). Lamonica took his FM AMERICA program to Nashville during the show and broadcasting during the daytime from the **Conifer Corporation** booth, and at night from his hotel room at Opryland, he kept up a steady stream of debate on the Viewer s First issue. For most of those attending Nashville, the impact of the Lamonica talk-formatted program would not be evident until they returned home after the show (the program was not available within the Opryland Hotel and attendees at the show missed what was happening by being absent from their own dish systems).

Lamonica feigned 'neutrality' on the issue but his questions on the air drew a steady stream of irate non-attending TVRO 'self-professed dealers' and 'consumers' who found the involvement of SPACE in the scrambling war 'distasteful'. Lamonica, a self-described 'fast study' in TVRO, entered the industry as an outsider barely 60 days ago but the impact of his



RARE SMILES/ 'FM AMERICA'S Keith Lamonica (left) with **Viewers First's** Gus 'Sandy' Wirth react to telephone question from FM AMERICA broadcast facility at the Opryland Hotel. Wirth appeared on FM AMERICA during show to answer TVRO viewer concerns about apparent 'conflict' between VFN and SPACE's anti-scrambling posture as seen by consumers.



NO WINNER/ CATA President Steve Effros (right) and SPACE/VFN attorney Rick Brown packed the hall in a much touted 'debate'. Event had no moderator because, as Brown quipped, "Nobody would dare come between Steve and I".

'talk-show immediate-journalism' has touched virtually everyone in the business in a short period of time. From executive representatives of HBO to Rick Brown, and everyone in between, FM AMERICA has turned the industry from a 'once a month' or 'twice a month' news mentality into a 'daily newspaper' mentality. By the time the Nashville show was over and people were returning home to tune-in Lamonica once again, many were surprised to hear SPACE and Brown and everyone associated with SPACE being aggressively 'damned' on the FM AMERICA program.

Out of the 'FM AMERICA' listenership there are the seeds of a new consumer organization evolving and many would 'fear' that Lamonica, having tasted his first real trade show and the excitement of being in such an aggressive industry, might position himself as a 'consumer advocate' leader for such an organization. SPACE, quite by accident, was also having second thoughts about the consumers.

The original SPACE bylaws and format allowed for several 'consumer members' on the SPACE Board of Directors (3).

2/ FM AMERICA airs daily at 9PM eastern time, T303, TR19, 6.2 MHz subcarrier audio until 12 midnight eastern.

Consumer support of the trade association never 'prospered', however, and in 1984 formal representation by consumers on the board ended. The 1985 board has had second thoughts about a part of this issue and during the Nashville meeting it was agreed that an active campaign, perhaps costing SPACE as much as \$25,000 or more, would be mounted to 'sign up at least 200,000 consumer **supporters** for SPACE'. The concept came about because the NCTA and others have been telling Capitol Hill that SPACE speaks **only for** manufacturers/distributors and dealers. SPACE has countered by stating that the best, long-term interests of consumer-viewers exactly coincide with those of the supply side of the industry and when there is a victory in Congress for the **supply** side, **there is also a victory for the consumer-viewers.**

To 'prove' this point, SPACE now wants postcard 'ballots' from **200,000** or so consumers. **Not expecting** any financial revenue from consumers, SPACE will attempt to reach con-

3/ CSD editor Bob Cooper resigned from the Board in April of 1983 over a question of leadership integrity; he was the last 'consumer representative' on the board before that category was abolished from SPACE.

sumers through program guide advertising to elicit 'postcard ballots' from consumers attesting to the consumer's agreement that SPACE can (and does) 'represent their best interests'. Lamonica sees this action as 'contrary to the best interests of the consumers' and has minced few words in inciting listeners to his position.

The scrambling issue, indirectly the root of the Viewer's First debate, drew more than its share of interest during the Nashville show. The pre-planned highlights for scrambling included a 'debate' between Rick Brown and CATA (Community Antenna Television Association) President **Steve Effros** on 'opening Monday'. The concept for a debate between the two originated with BORESIGHT TVRO program



LEFT OUT/ Holmes Hardin, of Canaan Communications, Inc. (212/909-1313) was 'odd man out' during SPACE presentation on behalf of Viewers First marketing system. Hardin was allowed to describe his 'competitive' program for TVRO viewing only after being recognized by trade press and dragged into discussion over mild protest of SPACE officials handling the meeting.

hosts **Shaun Kenny** and **Karen Howes**. The duo had lined up such a debate for television coverage in August, with attorney **Terry Emerson** (legal aid to Senator Barry Goldwater) as 'moderator'. The debate was canceled close to the actual taping date for reasons best left unexplored here, and rescheduled as a 'highlight' of the Nashville show.

Playing to a standing-room-only crowd, and covered by

"THE CABLE operator does not pay just for the people who want to watch the programming; the cable operator pays for all of the people on the system so that a small percentage can watch this specialized programming, another small percentage can watch that specialized programming and had the market developed in a different way with people paying only for the programming they wanted to watch, the prices per channel would have been much higher." (Steve Effros to Rick Brown)

numerous TV cameras from within and outside of our industry, the debate quickly eroded to a series of monologues between the two sparring partners. Brown defended SPACE's position that announced (CNN, ESPN, HBO, USA, etc.) rates were several hundred or several thousand percent too high while Effros got bogged down in a series of arithmetic examples so complicated that even he forgot how his numbers added up in several of his 'hypothetical' explanations. **Nobody won the debate** because in the view of most attending, it was not a debate at all but rather a re-statement of frequently press-reported positions of the two warring sides in the scrambling rates issue. Brown won the 'emotional' battle because he was on 'home ice' with a friendly crowd. Effros lost because he bothered to show up.

Senator Albert Gore, speaking to the SPACE banquet crowd aboard a crowded riverboat excursion on Tuesday evening, made his expected statement that he would be introducing legislation in the US **Senate** to support legislation already introduced in the US **House**. The legislation would prevent satellite program distributors from scrambling their services until a 'fair and readily available descrambler marketing plan was in effect'. Those who were 'on board' the General Jackson riverboat to hear the Senator's speech and announcement were most impressed by his 'stem-winder' deliverance that drew standing ovations.

Another person who stood up to speak was shut off in mid-sentence by SPACE legal advisors. During a well attended 'Dealer Rally' on Monday afternoon, dealers from the floor were emotional in their complaints against direct-selling distributors and the plight of the dealer who must contend with consumers who want clear and concise answers concerning the 'threat of scrambling'. Rising to answer a question put by BORESIGHT's Shaun Kenny, M/A-Com VP **Jim Bunker** was attempting to explain the pricing structure of his cable and home-style descramblers when legal representatives from SPACE cut off Bunker in the middle of his response. The official explanation was that **'SPACE meetings cannot be a forum for any discussion of pricing or distribution policies'**; the same general caveat which stopped the complaints of dealers dead in their tracks during the 'big board' meeting earlier in the show. Bunker got the sympathy vote for **trying to explain** his firm's controversial involvement in the scrambling

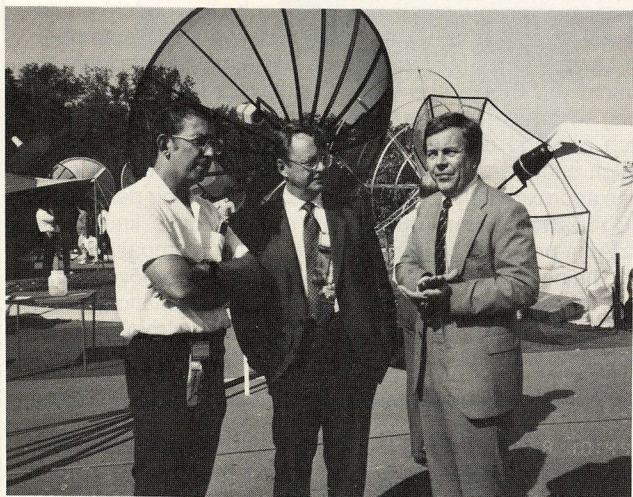
"How many TVRO systems are you going to sell to consumers if the consumer has to pay more for a specified program service with a TVRO than he would pay through his local cable system?" (Rick Brown)

hardware picture.

'Explaining' home TVRO will be the primary objective of another SPACE-planned event. A 'march on Washington' (more appropriately, a 'Dish-In') will bring 100 or more trailer mounted antennas to the nation's capital sometime late in October or early in November. The concept is that 'public demonstration' will allow SPACE dealers to organize with SPACE headquarters assistance hands-on demonstrations of TVRO to the Senators and Congressmen. The SPACE 'orchestrated' program is designed to build additional support for bills pending in Congress to favor TVRO with a two year scrambling moratorium and legislated pricing structures for scrambled programming.

Dealers also came down stiffly on the results to date from the SPACE-engaged Public Relations program. A PR agency hired earlier this year has been working with a budget in the \$10,000 region each month and dealers voiced concerns that the dollars spent are not producing results in the marketplace. The PR firm took a more activist role in Nashville than at previous shows, and countered opposition to their funding with a suggestion that they place one of their professionals directly into the SPACE headquarter's office as a means of improving liaison between client and firm.

NBC, meanwhile, is wrapping up their own mini-documentary dealing with home TVRO. The network recently ran a two-part report in the **NBC Evening News** which focused on the use of TVRO technology for offshore third-world countries such as Belize. A more aggressive 'piece' is scheduled to appear in their new-to-fall-schedule news magazine '**American Almanac**'. Almanac is a **60 Minutes** and **20/20** competitor which NBC feels it must have to be competitive with CBS and ABC news departments. The TVRO piece, now slated to run between 8 and 10 minutes during a mid to late October showing of the program, has been in production for nearly two months. Field Producer **Mary Drayne** (202/885-5025) has most of the original video 'in the can' at this time but is still looking for off-satellite 'outtakes' depicting sports or news personalities doing something 'foolish' for flavor on the show. Max Robinson 'outtakes' are not desired since Max is reported in the hospital these days and NBC feels it would not



NBC ALMANAC UP NEXT/ Network's Bob Jamison (right) chats before NBC camera with Taylor Howard and Coop to collect historical data on the TVRO industry in advance of creating 'TVRO Profile' for airing late in October.



WHO'S ON FIRST/ Gene Augustin (center) talks for the BORE-SIGHT television camera with STV/ON-Sat Publisher Chris Schultheiss about his recently granted US Patent for a rotating probe feed system which seems to question the origins of the Chaparral 'Polarotor'™. Augustin is talking directly with Chaparral's Taylor Howard concerning possible Chaparral 'licensing' of the Augustin patent.

'look good' to pick on a former competitive newsman anyhow.

Bad, not good, publicity was another dealer concern voiced during the 'big board' meeting. **Tom Harrington** and **Anna Visalli** asked what the trade association was doing to 'arm dealers' with competent response material to counteract the flood of anti-TVRO publicity appearing in newspapers coast to coast. (An earlier SPACE meeting had promised dealers a 'package of materials' created between SPACE, its legal staff and the PR firm. The packet was to be designed to equip the dealer with factual, educated responses which he could use as a 'short course' in defending TVRO in his town, when attacked by the media or cable companies.) Taylor Howard promised the dealer members prompt attention to the problem.

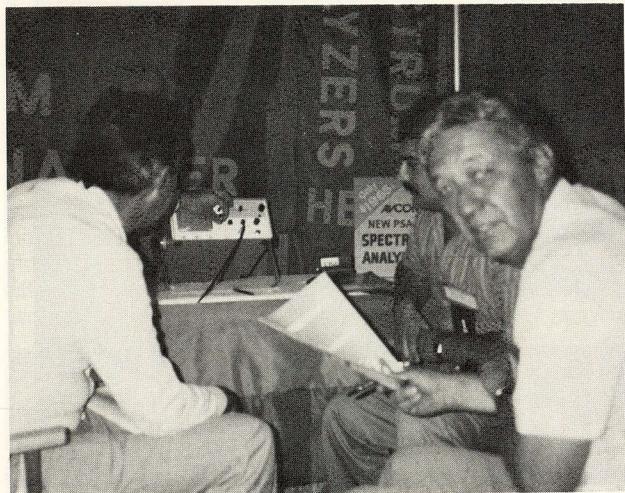
TECHNOLOGY Awareness

Rick Schneringer reported 715 exhibit booths and 420 antennas in Nashville; a 52% increase from the 1984 Nashville show for booths and 9% decrease for antennas. The Las Vegas show (February 19-20-21) will move into the North and South halls of the Convention Center, out of the 'hotel environment' for the first time.

With more than 700 booths crammed with equipment, an accurate and detailed assessment of 'new equipment' is not possible. Here are a few of the highlights, both from the booths and behind the scenes.

United States Patent number 4,528,528, granted on July 9th to **Eugene P. Augustin** of Orlando, Florida (305/425-1181) surprised those who were exposed to the patent announcement. Augustin has been granted a patent which on the surface seems to challenge an earlier patent granted to Taylor Howard (Chaparral Communications) for the '**Polarotor**'™ device. Augustin has licensed **Boman Industries** to use his patented feed system and was talking with Chaparral during Nashville. In question is whether the earlier Chaparral/Howard patent is in fact valid.

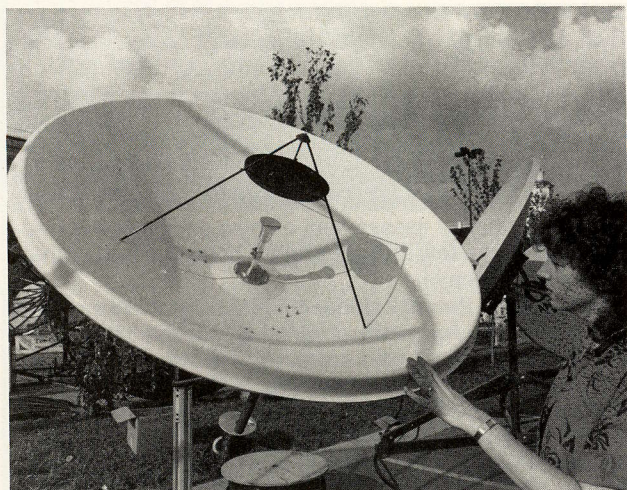
Unusual 'total systems' for C plus Ku band packaging,



GOING SOUTH/ Trio of Colombian TVRO dealers inspecting the AVCOM PS-35 spectrum analyzer. AVCOM had best show ever with outstanding acceptance of their newly refined line of spectrum analyzers and test system accessories (see CSD for October).

allowing user control of both electronics and antennas for dual-band operation were displayed by **Multi-Sat Communications, Inc.** (301/922-5690). The Ku band world is coming on fast and it was useful to see competent engineers tackling the 'two-band' hardware problems before the fact.

Another unusual antenna system was offered by **Merrimac Satellite** (800/545-3522 or 800/362-7212). Interest in accessing the Russian Molniya satellite system has increased since CSD first broached the subject in 1980 (see **CSD** for **May, 1980**). Packaged systems designed to provide not only antenna tracking of the unusual Molniya 'looping orbit' but full recovery of the 'sound in syncs' audio and the SECAM color have been selling for upwards of \$35,000 recently. Merrimac has packaged a complete system for just over \$10,000 and dealers with innovative high school and college classes interested in live coverage from Moscow will find it a suitable



DELTA GAIN on 12 GHz? Luxor's new made-in-Sweden 12 GHz dish has sub-reflector feed system and is important part of the firm's new 'two-band' dual system package.

"This (ESPN, CNN, et al) marketing program is just a prelude to scrambling. We (cable TV) were hoping that this prelude would give everyone the opportunity to educate the public. If you (SPACE) want to take the attitude of not educating the public but continuing to confuse them, that is your right. We (however) are going to go ahead and work on scrambling." (Steve Effros)

package for re-sale.

AVCOM (804/794-2500) has made the transition from high quality receiver OEM to high-quality test and troubleshooting OEM with traditional Hatfield 'grace'. After previously announcing their PSA-35 and MSA-85 spectrum analyzers, AVCOM has refined both products with small but important changes plus a full line of adapters and support test units. For example, there is the MSG-4 '**Microwave Signal Generator**'; a 3.7 to 4.2 GHz tunable microwave signal source (0 dBm, flat to within ± 2 dB) for system test and bench analysis of LNAs and downconverters. And the PTR-24 '**Portable Test Receiver**', a complete field test set capable of performing 4 GHz, and IF signal measurement and analysis. A built-in TV screen monitor, interfacing for an analyzer, AC or DC operation make this an extremely attractive package for antenna set-up or troubleshooting. A new spectrum analyzer calibrator and various test heads for adapting to LNAs are also available. The TVRO world, because of AVCOM and others innovating, is no longer 'test equipment poor'!

M/A-Com reported during the show that the nation's largest operator of cable television systems (TCI) has ordered 'thousands' of VC2 type cable headend descramblers. TCI reportedly will use the descramblers to equip its hundreds of cable systems for descrambling of cable basic feeds (i.e. CNN, WTBS, others) when they do go ahead and scramble. Shortly after the show, another major multiple cable system operator, **Sammons Communications**, made a similar announcement about 'warehousing' of VC2 descramblers.

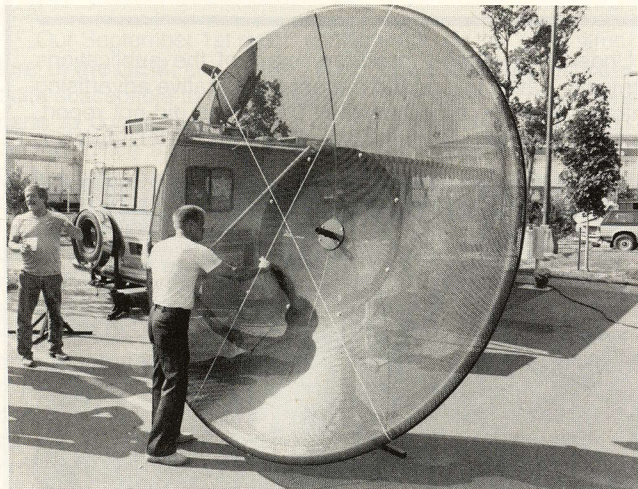
Oak Communications used the show forum to announce that for the first time, a scrambled 'major boxing match' would be made available to **home** TVRO viewers. The September 21st Larry Holmes/Michael Spinks battle will be available to customers of Space Age Video Distributors (San Jose, California) who have the Oak Orion (Personal) decoders. The match is being distributed on a pay-per-view (PPV) basis through cable and other outlets was well. Space Age estimates approximately 8,000 home users have their decoders.

Chaparral Communications expanded its line-up of PolarAmp products by introducing a .3 (f/D) compatible version. The new design of the PolarAmps allows removal of the plastic throat cover so the 'Golden Ring' illumination insert modifier can be installed. Another new package from Chaparral includes a line-up of accessories for 950-1450 MHz BDC

"You (Rick Brown) have clearly become a participant on your own in a system of marketing to the home (a reference to Viewers First) and I think that is great; there is nothing wrong with that. (Scrambling) IS coming." (Steve Effros)

installations. A line amplifier, two or four-way splitters, and 4 and/or 12 GHz switches are now available. The Sierra series of receivers are now being shipped as well.

LUXOR brought their entirely new 9900 receiver system to Nashville, backing it up with one of the most elaborate display booths ever seen at a TVRO trade show. The 9900 is the result



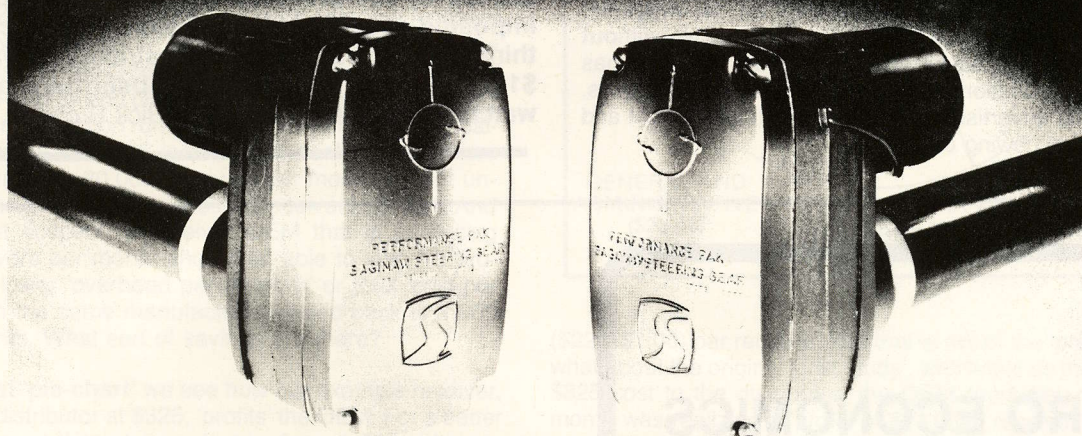
TAUNT STRINGS/ you adjust the bolts on this perforated dish against the hub until the strings 'touch', but be careful; you can change the shape of the dish (and thus performance of antenna) by mis-adjusting!

"I don't think ESPN and CNN really want to be the 'bad guys'. I think this is a sideshow. I believe the cable operators have caused this by saying to these programmers 'either you scramble your programming or we will kick you off our (cable) systems'. And the programmers are scared of this." (Rick Brown)

of several years of extensive new engineering under the direction of **Bo Lindqvist** and it takes the art of total arm-chair remote control to a new plateau. The receiver system provides more than 850 memorized transponders and when once set up the viewer need only push access buttons on the remote to start the process of selection. Those seeing the new system were very impressed and even leading designers from Uniden and other top-selling firms gave Luxor high marks for their innovation.

Following up on our September 1st cover story, the **Parclipse** 9 and 12 foot antennas appeared with their new 'ring mount' in Nashville to essentially rave reviews. The new 'push-on clips' will save many a finger bruise and perhaps shave 30 to 45 minutes out of the assembly time required. **Raydx**, meanwhile, found dealer acceptance of their new and innovative single-conversion (multiple outlet) receiver enlightening. Dealers generally gave Raydx congratulations for the receiver's pictures and sound but found fault with the general styling and a lack of full-time on-panel display showing the transponder tuned in. Raydx decided to re-design the styling

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and to add on-receiver LED full-time display of the transponder selection as a result of dealer feedback in Nashville.

SIGMA-VU had a very interesting receiver system that allows the dealer to interface existing 70 MHz (IF) receivers with multiple receiver BDC compatible systems. They employ an 'upconverter' that returns the BDC signal to 4 GHz. The net result is that you can stack up older style 70 MHz receivers with the newer style BDC receivers, on the same antenna at the same time, and maintain independent receiver selection over channels viewed at each viewing location.

GENSAT brought out their BDT-1200 'translator' which does essentially the same thing for installers who need to make a 70 MHz receiver operate as a part of a BDC (950-1450 MHz) antenna package. The unit takes in the 950-1450 MHz signal and outputs at 70 MHz so the installer can feed the single conversion receiver signal just as if it came from the original 3.7 to 4.2 GHz 'head'.

It was also interesting to note the 'exhibit booth presence' of **Hughes Communications**; the satellite building/operating (i.e. Galaxy) firm. Hughes simply wanted TVRO installers to realize that Hughes is interested in the growth of this industry, and that Hughes sees a growing and profitable relationship between their firm and our industry in the years ahead.

After a trial start in Las Vegas (United Video; WGN et al) as an exhibitor, there was some disappointment that programmers such as CNN, ESPN, HBO (et al) were not more visible during the Nashville show. Behind the scenes, a minor 'rhubarb' had been brewing for several weeks prior to the Nashville show. CNN and HBO have both scheduled a series of TVRO trade publication 'advertisements' in which they seek to 'condition' viewers (and dealers) to the forthcoming scrambling environment. The advertisements offered to the programming guides and dealer publications speak of 'programmer willingness' to work with our industry in adapting to 'scrambling' and are represented to be a 'series of advertisements designed to educate the TVRO industry'. Initially, many of the guide publications refused to accept the advertisements and maintained that the advertising copy planned was 'misleading' to viewers. The CNN initial print ad, for example, made statements about the 'illegality of viewing CNN without having sent in their requested \$25 per year'. SPACE has quietly asked publications to NOT accept the advertisements, stating that the advertisements are not factually correct and will mislead the viewing consumers.

"Just as CATA only represents a portion of the cable industry, SPACE only represents a portion of the TVRO industry. Your own (SPACE) press release dated today says that you have 2,200 dealer members. Now, are there only 2,200 dealers in this industry?" (Steve Effros)

Under considerable pressure, most of the publications eventually 'caved in' and **did accept** the lucrative advertising contracts from the programmers. Those that did not report, amongst other 'abuse', telephone calls from TVRO hardware



suppliers 'threatening to cut off advertising' if the publications accepted the programmer advertising. Coop will comment on this scenario in CSD for October.

"It is unbelievable what the cable industry and the programmers have done to our industry. There is so much confusion in the marketplace being caused by the programmers and cable operators imposing these marketing plans. (How can you think that (it is fair) for our consumers to watch for \$100 a month what cable subscribers are now watching for \$10 a month?" (Rick Brown)

TVRO ECONOMICS

101A/ Part Two

REcapping

In CSD for September 1st we began our two-part visit with the subject of 'profit'; where the profit comes from and where the profit goes in the TVRO business. There are more than a few serious students of the TVRO industry who are convinced that the real 'profit bath,' involving tens of millions of profit dollars, is still ahead. That the losses to date will only be a dimple in the bank accounts of those tens (or hundreds) of millions still to be lost in the hardware end of this business.

Of course not everyone is so pessimistic, as the sales trends of recent weeks suggests that the industry bounced back out of the normal (and now expected) 'summer doldrums' earlier than in years past. Those who monitor sales expect the 'early fall recovery' to see us through the best fall selling season of any to date with perhaps as many as 65,000 terminals moving to ground mounted poles during the peak month. It will take a very busy retailer network to accomplish such a goal.

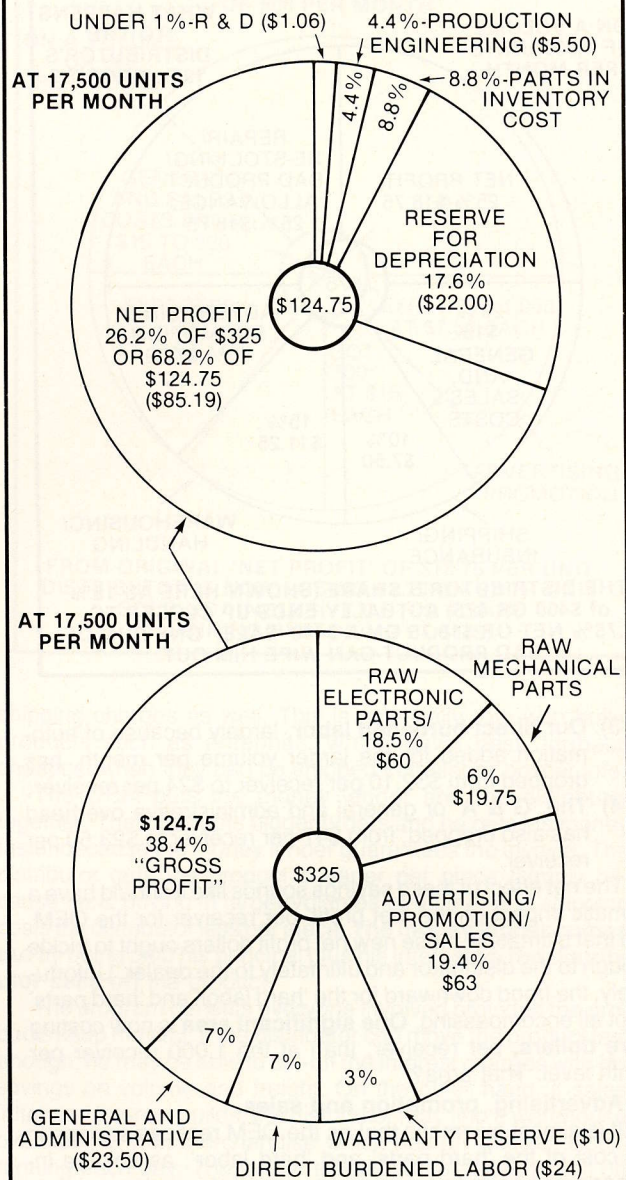
Our September 1st report concentrated on the 'profit structure' of the OEM; and it talked about how the OEM profits are quite susceptible to everything from shortages of component parts to competition coming on the scene earlier than expected. Once the product has left the relative safety of the OEM warehouse, it is 'on its own' in the marketplace where the distributor takes over. Many have criticized the 'structure' (or lack of structure) in our present distribution system. Some OEMs will sell product to anyone who can manage to look as if he can find the cash to pay for the goods; whether the buyer is planning to act like a 'real' distributor or not. Many dealers, especially those new to the business and lacking sophistication in such dealings, will shop **only price**, not yet wise enough to learn that when a product fails they will have to deal with the distributor once again. Naturally it would be best if the distributor they bought from was prepared to back up their product problems with either distributor-administered service, or a replacement unit if the broken unit must be returned to the original factory for repair. Unfortunately, not every distributor will be responsible for a product after he delivers it; not every distributor will even take a product back. Many simply refer the dealer to the factory itself.

In CSD/2 for September 1st we saw how a unit which costs the OEM \$214 in lots of 1,000 per month (each) end up going to the distributor for \$325 and to the retailer/dealer for \$400. We also saw how the original research and development for a product must be spread over the 'expected lifetime' of a product such as a receiver; a \$222,000 original receiver developmental cost, spread over 10,000 receivers, ends up being a \$22 'burden' to each receiver shipped out the door. This cost, per receiver, obviously is a function of the number of receivers ultimately produced from an original design; more receivers results in a lower R and D cost per receiver shipped. Up to this point, our 'pie-charts' and dialogue have focused on relatively small receiver production runs; 1,000 units per month typically. The leaders in the 1985 industry are dealing in far more significant numbers; 30,000 receivers per month are not unheard of for the 'leaders' in the present receiver business. And as you might suspect, a receiver OEM that is producing 17,500 receivers per month should be able to ship his products with a lower 'overhead per receiver' or total 'cost per receiver' than the same manufacturer scaled back to 1,000 units per month. What sort of savings are there?

In our first 'pie-chart' we see how our example receiver, going to the distributor at \$325, 'profits' the OEM. For a better understanding of the relative change from 1,000 units per month, see our chart on page 16 of CSD for September 1st.

When we were producing but 1,000 receivers per month and we anticipated being able to produce 10,000 receivers before our design was 'dead', we had \$22 attached to each receiver to recover our original research and development. But now we are in high gear at 17,500 receivers per month and our R and D 'assignment' for each receiver has dropped to \$1.06 per receiver; a significant dollar improvement of \$20.94

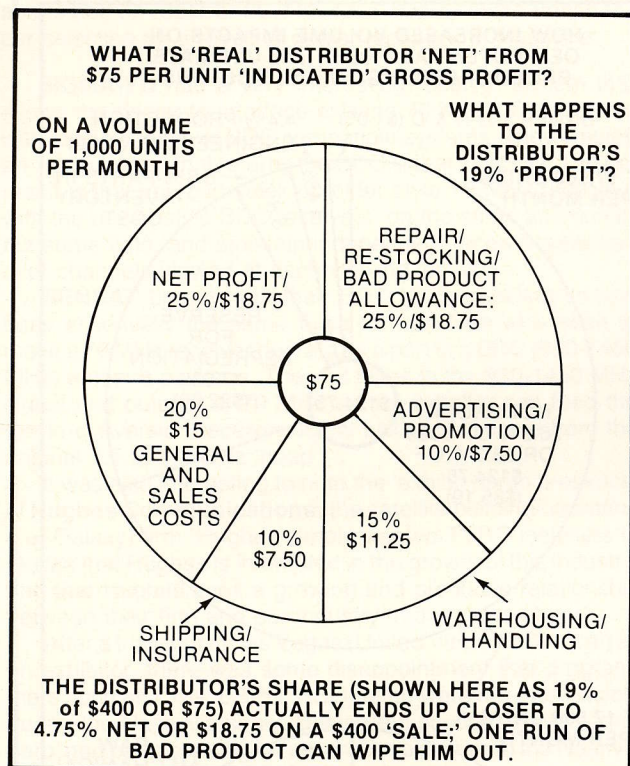
HOW INCREASED VOLUME IMPACTS ON OEM POTENTIAL PROFIT and ULTIMATE PRODUCT PRICING TO DISTRIBUTORS



(\$22 - \$1.06) per receiver. But that is out of the 'profit study'; what about the original 'cost study', which told us that out of a \$325 cost to the distributor, the OEM producing 1,000 per month was realizing a 'profit' of \$111 per receiver?

As the bottom pie in our first chart shows, there are **savings** from the 1,000 level:

- 1) **Raw parts**, now being consumed at 17.5 times the rate of our 1,000-per-month level, are reduced in cost from \$75 to \$60;
- 2) **Mechanical parts** have reduced from \$38.50 per receiver to \$19.75 per receiver (mechanical parts don't come into their 'own' for cost savings until much later than electronic parts);



- 3) Our direct burdened labor, largely because of automation added for the larger volume per month, has dropped from \$32.10 per receiver to \$24 per receiver;
- 4) The 'G & A' or general and administrative overhead has also dropped; from \$47 per receiver to \$23.50 per receiver.

The net effect of these savings sounds like it should have a dramatic impact on the 'net profit' per receiver for the OEM. And that ultimately, those new net profit dollars ought to trickle through to the distributor and ultimately to the dealer. Unfortunately, the trend downward for the 'hard labor' and 'hard parts' is not all encompassing. **One significant area** is now costing **more dollars**, per receiver, than at the 1,000 receiver per month level. That area?

Advertising, promotion and sales.

It is almost axiomatic that as the OEM realizes savings in the cost of the 'hard parts' and 'hard labor', as volume increases, he begins to spend more per unit shipped to maintain his volume. In other words, in virtually all areas of retailing as volume increases, a competitive marketplace dictates that **the cost of sales increases**. And that cost of sales, on a per unit basis, outpaces the increased volume itself.

It is far more complex than having a \$10 bill tucked away for advertising and promotion on a receiver and watching the \$10 bills pile up as the volume increases (although certainly a select group of firms even in our business enjoy this approach to marketing). It is far more complex than having 1,000 (receivers) times \$10 or \$10,000 to spend on sales and promotion at the 1,000 receiver per month level; and, having 17,500 times \$10 or \$175,000 to spend on sales and promotion at the 17,500 receiver per month level. The OEM reaches a point where **as his own share of market increases**, he must battle (i.e. promote) harder and harder to both maintain his share and to force his share to continue growing. The truth is that

where it may have been possible to properly and adequately sell (i.e. promote) 1,000 receivers per month for \$10 each, the cost per receiver at the 17,500 level may increase by a factor of five or even six! In other words, a \$10,000 sales promotion budget per month versus a \$1,000,000 sales promotion budget per month!

Naturally these increased costs are reflected in the bottom line 'profit' of the OEM; as he **saves money** on the hardware itself (i.e. hardware costs) **he begins to spend more** (and more) money on the 'software' costs. This is reflected in our first 'pie-chart' for this portion of our report; what was a profit-per-receiver of \$111 at the 1,000-per-month level has grown some at the 17,500-per-month level; **but only** to \$124.75 per unit, as shown here.

As noted in our September 1st installment, that 'apparent profit' is an illusion however; we still have to factor in the original research and development costs (\$1.06 in our example here, per receiver), our on-going production engineering costs, our parts-in-inventory costs and our reserve for depreciation (which is a static dollar amount that does not change when the volume changes). So our **real** 'net profit' becomes when \$85.19 at 17,500 units per month rather than the \$44.40 as shown in our first installment, at the 1,000 receiver per month level.

Thus even with the considerably greater sales costs, per receiver unit, the OEM **is able to nearly double** his profits-per-receiver in between our two examples; but it took an increase from 1,000 receivers per month to 17,500 receivers per month to get there!

THE Distributor

Through all of this the distributor has been buying our example receiver at \$325 each and selling them for \$400 each. **On the surface**, as we noted for September 1st, he is 'profiting' by \$75 per receiver or a 19% profit structure. Unfortunately for the distributor, this is not even close to the truth.

When he handles 1,000 receivers per month at \$75 **gross** mark-up per month, which places him in the big time, he has his own costs to consider. For example:

- 1) His first consideration is that the product he sells work, or if it does not work, that he service the unit as best he can (not all OEMs allow distributors to service equipment; the recently announced **Raydx** receiver, for example, goes directly back to the factory for a one-for-one replacement and neither the distributor nor the dealer does **any** service work). His cost of repairing, re-stocking (whether he provided a loaner or one-for-one replacement without waiting for repair) and his 'bad product allowance' will run in the 25% region; \$18.75 in our example.
- 2) He has his own **advertising program**; direct mail, trade publications, perhaps seminars for dealers. Some of this may be 'co-op' funded by his OEM; most will not be. In our example (see **second pie-chart** here) we have allocated 10% or \$7.50 of his gross mark-up.
- 3) He has a place to store and secure the products; he has people and equipment to move the product around, check it out, make it ready for shipment. We have allocated 15% or \$11.25 for this function.
- 4) He may have a shipping expense (some distributors **will** pay it) and he certainly will have insurance. If he doesn't pay shipping **to** the dealer, chances are **he does pay shipping from the OEM** to his warehouse. We have allocated 10% or \$7.50 for these two func-

tions.

- 5) He has a staff, sales people, bookkeepers, telephone crews; he may or may not pay his sales people on a commission plan. And it all adds up, as we have allocated 20% or \$15 from our \$75 'nut'.

And so finally we come to his **net profit**; if he is extremely good at what he does, and if he is able to maintain his pricing for his product against the stiff competition of other distributors offering the same or other OEM products, he may squeak through with **25%** of his **original \$75** or **\$18.75** per unit. But the risks are considerable because as you can quickly see, if he is forced to drop the charge he gets for our example receiver by just \$20, to \$380 rather than \$400, he just lost \$1.25 per receiver. We'll come back to this.

DISTRIBUTOR In Trouble

The distributor is somewhat at the mercy of the OEM in the timing department. He sees a new OEM product at a special showing and he wants to be first to offer the product to the trade. Advertising, brochures, catalogs are updated to reflect the new product. All of this revolves around the first expected date of availability for the product.

To back this up, he rearranges his warehouse, changes his sales staff, and generally spends his money **in advance** of receiving a new product which he **hopes** he can sell at some pre-determined level per month. In our **third pie-chart** this month we see a distributor getting into financial difficulty.

- 1) He expected 1,000 receivers to move in a given period of time and structured his advertising program around that expectation. He is fooled and for whatever reason (**late** delivery of the product, **poor** estimation of sales potential, **poor** performance of the product in the field resulting in too-few repeat orders) he only moves 500. But his advertising budget, at \$7.50 per unit, ends up being \$15 per unit because he has a 50% drop in sales from the anticipated level.
- 2) He had apportioned his general and administrative overhead on the same formula; only rather than costing him \$15 per receiver, it ends up costing him \$30 per receiver.

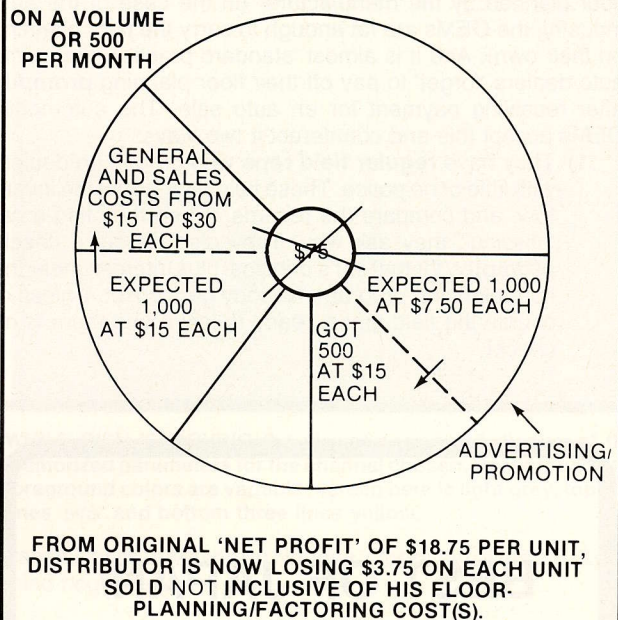
So he ends up with **\$7.50 additional** advertising per unit actually **sold** and **\$15 additional** general and administrative overhead for each unit actually sold; and his net at the end of the month is not a \$18.75 'profit' per receiver but rather it turns out to be a **loss** of \$3.75 per receiver. And that is not inclusive of his floor planning or financing charges if he is on the hook at the bank or with a factoring company for those 500 receivers that sit there without selling.

THE Floorplanning Costs

Floorplanning is a relatively new money program in TVRO; it usually originates at an OEM for the benefit of the distributor (**Paradigm Manufacturing** apparently pioneered this at the OEM level), or more recently, at the distributor level for the benefit of the dealer (**Echosphere** was a pioneer in this area for dealers). The concept is this.

A money lender, such as **Borg-Warner** or **GECC**, agrees to finance the inventory for the distributor (or dealer). In the case of the OEM, he offers to 'save the distributor money' by helping the distributor finance the product. This is possible because a distributor may only be able to order in relatively small quantities (say 50 at a time) if he is dependent solely upon his own 'cash flow' to stock a product. The distributor knows that if he could order 100 or 250 at a time, he would get a better 'price break' for the product, and probably save on

HOW A DISTRIBUTOR GETS INTO TROUBLE
BY ANTICIPATING A VOLUME OF 1,000 PER
MONTH AND REALIZING A VOLUME
OF 500 PER MONTH



shipping charges as well. This is especially true with bulky products such as antennas, which travel best, furthest, cheapest when they can be shipped in trailer or boxcar lots.

The OEM puts the money lender and the distributor together. The OEM gets bigger orders and he gets his money faster because the money lender guarantees the invoice. The distributor gets the product cheaper per piece (simply because he is buying in larger volumes at a time) and shipping costs the distributor less per piece. **The money lender comes out** by being paid his principal plus his interest **as the distributor sells off** the product.

The program benefits everyone involved provided the products keep moving. If the distributor can move the product fast enough, he may be able to set-off the interest charges with his savings on volume and freight. On the other hand, if sales falter and interest builds, the distributor may find a warehouse overstocked with merchandise which has an 'interest clock' running each day. The longer the distributor takes to sell off the inventory, the greater the interest and his 'profit margins' slim down accordingly. Yes, it is a gamble.

Floor planning for the dealer works in the same way. The difference here is that the distributor has a warehouse and even if the product does not move, the money lender knows **where it is** and where to find it if he has to reclaim his 'collateral'. Dealers are not as permanent, they can move equipment more quickly and they are harder to keep track of. In theory, when a product that is floor-plan-financed **is sold**, a report of that sale (**and payment** of the principal and interest for that sold product) should be **immediately forwarded** to the floor planner/money lender. In practice, days, even weeks may leak into the sequence and while each day brings more interest, the temptation not to pay (**promptly**) is more than some distributors or dealers can handle. And that's where they get into trouble, retaining the money they were supposed to ship

to the floor-planner-lender **promptly**.

Similar programs have been a staple of the automobile industry for many years; virtually all of those brand new, shiny cars you see stacked up on that five acre lot are being floor planned by the manufacturer (in the case of the auto industry, the OEMs are fat enough to carry the floor planning on their own). And it is almost 'standard practice' that some auto dealers 'forget' to pay off their floor planning **promptly** after receiving payment for an auto sale. The automobile OEMs accept this and counteract it two ways:

- 1) They have **regular field reps** who drop in on dealers with little or no notice. These field reps 'count the inventory' and compare the records. When they find a car 'missing', they ask why. They also expect a check, **promptly**, for that car's principal plus interest under the floor planning program. Nobody gets upset. Unless of course the field guy is ready to leave and there is no check!

- 2) Or, the auto OEMs **finance both ends**; the floor planning to cover the dealer/distributor's inventory, and then the consumer financing (such as through **GMAC**). When a car is sold, it shifts from the floor planning 'inventory' to the consumer-financed 'inventory' and the money that finally reaches the auto dealer is the selling price **less** the floor plan charges **less** some handling charges. He gets a 'profit check' directly from GMAC and he never sees the **bulk of the dollars** for the car because they stay with the OEM through the whole sequence.

Such a plan is not yet available in the TVRO industry, but it is coming. It takes a strong OEM with capital reserves and the ability to floor plan both the dealer and to lay-off (or carry) the consumer financing portion as well. When that arrives, perhaps in 1986, an entirely new set of 'TVRO Economics' will come into play; and we'll revisit the subject at the time under the general heading of 'TVRO Economics 101B'.

BEST OF JAPAN/ USS-Maspro SR3 (Part Four)

PART FOUR

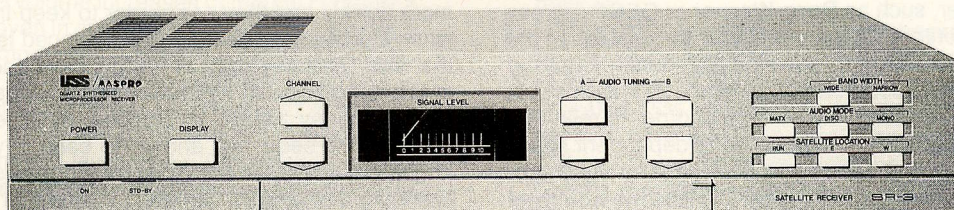
In our August 1st CSD, we looked at the design philosophy behind the **Uniden UST 7000** series receiver and pointed out that many of the better selling products coming into the North American TVRO marketplace these days from Japan were indeed very innovative and in their own way establishing new design trends. In our August 15th issue of CSD/2, we continued the 'Best of Japan' series with a look at the **Panasonic** TVRO receiver entry, finding it somewhat lacking in performance features but an excellent value for dealer resale nonetheless. More recently, in CSD for September 1st, we explored the world of the **DX DBS-700** receiver and its companion activator system and found that DX/C. Itoh had done some very clever things with both their receiver design and their marketing to raise the previously second-level Japanese play-

er into the front ranks of dealer and consumer visibility.

Our fourth and concluding look at 'The Best Of Japan' is a technological curiosity but hardly a marketing innovator. If you measure success in this industry based upon receiver volume, the **USS** (United Satellite Systems)/**Maspro** receiver systems would hardly warrant a second look. Because in spite of their creative engineering and high marks for exceptional performance, their volume has never been large enough to rank them even in the top 15 of receiver suppliers to our industry.

USS is itself something of a technical curiosity. Headquartered so far north in Minnesota that summer barely lasts a month, USS has been in the TVRO business since early in 1980. Few others can make that claim. Noted first for strong, accurate fiberglass TVRO antennas, USS entered the receiver world with a very innovative LNB/BDC **type** of receiver in 1982. It was, we now realize, at least 12 months ahead of everyone else at the time and so complex were its hidden features that most of the industry did not really discover what the Maspro SR-1 receiver was about for more than a year after its introduction.

USS has a working relationship with Japanese manufacturer Maspro. And Maspro is roughly analogous to Blonder Tongue or Jerrold (GI) in this country; an (if not 'the') major supplier of CATV and Matv Electronics and antennas with annualized sales **well past** the \$100M mark. Usually 'out of bounds,' Maspro's plant when opened to a handful of North American TVRO suppliers and journalists in the fall of 1983 revealing a company which has everything available to its staff internally; a real world-class competitor. USS conceives the receiver products and takes those concepts to Japan with several visits per year. Maspro engineers, now totally equipped with C band antenna systems which allow them to work directly with below and above threshold signals from



various Pacific Basin satellites, try to turn the USS concepts into innovative products.

USS, **perhaps to a fault**, is run by one of the toughest and most critical management teams in the industry. Led by **Doug Dehnert**, the firm can be faulted for holding onto a design and not releasing product until every possible ounce of performance has been squeezed out of the electronics. This has led them into a quandry in recent years; by insisting that the products work 'better than' any competitive products available, there has been extended back and forth shipments of prototype and advanced-production receivers stretching over months as USS has refused to release new products until Dehnert and his team have been convinced 'there is nothing left to get out of the design' in the way of improved, more reliable performance. An outspoken critic of 'shoddy designs' and 'sloppy performance,' USS's Dehnert practices what he preaches, **perhaps to a fault**.

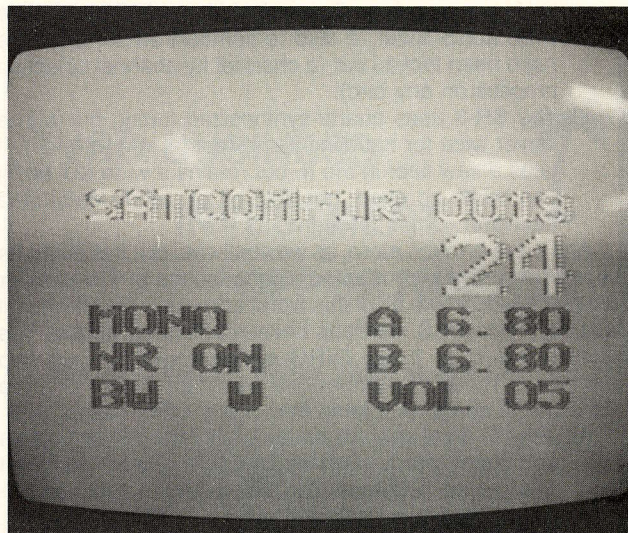
The SR-3 receiver was first revealed during the Las Vegas show this past spring. Dehnert was not satisfied with its performance and refused to release the Maspro production line. Next stop was the June show in Tulsa; **same story, second verse**. With frantic air shipments back and forth, there was a steady stream of modifications and changes going on across the Pacific in both directions. Dehnert merely gritted his teeth and hopped an airplane to Japan for another visit.

Dehnert and USS seem to have accepted their place in the industry without resentment. Unwilling to function in an environment where for every ten receivers (or antennas) shipped 3 or 4 or 5 produce angry, screaming telephone calls from dealer-customers, the firm has settled into a tiny niche as a supplier of virtually fault-free products which push technology or state-of-the-art to its very outer-most limits; without sacrificing product reliability. That is a difficult tightrope to walk and as a consequence, even shipping 1,500 receivers a month is 'big time' for USS.

Into this scenario comes the **SR-3** receiver. Of all of the 'Best of Japan' products discussed in this series to date, the SR-3 is the hands down winner as most creative and most advanced. To be quite honest, there are some North American products (Gensat, Viewstar) which come mighty close to the same general technology but very little else pushes the SR-3 in the 'features' department.

The DX DBS-700, the Panasonic C-2000 and the Uniden UST-7000 have one thing in common; all are the exclusive product of **Japanese** engineering. Each was created by Japanese engineers who at best were handicapped by only visitor status to the USA. None stayed here long enough to really assimilate the full impact or the many nuances of American TVRO. Dehnert, being non-Japanese and being rooted here (even if in far northern Minnesota), has a distinct advantage; the same advantage which **Keith Anderson** of Anderson Scientific, for example, has over the off-shore low-price-end producers of BDC receiver equipment. Dehnert also makes excellent use of the trans-Pacific shuttle, in both directions. Numerous Maspro receiver engineers with responsibility for the design of Dehnert's receiver concepts spend so much time in Minnesota that the Dehnert children refer to them as 'Uncle This' or 'Uncle That.' It has been a relationship between American entrepreneur and Japanese technology which has produced excellent products.

The SR-3 finally 'arrived' at the Nashville show. We first had an opportunity to play with the product in June and quickly found ourselves in the middle of Dehnert's latest complaint list which he was turning into a 'final modification program' to



WHILE DISH IS MOVING the viewer sees a full display of the memorized parameters for the channel chosen. Background and foreground colors are variable; screen here is light grey, top two lines 'pink' and bottom three lines yellow.

transmit back to Maspro in Nagoya. Operation of the SR-3 was mind boggling, even then.

BASICALLY 'Not Basic'

The SR-3 attempts to be the most consumer-pleasing receiver in TVRO. It does this by reducing the challenge of changing channels or satellites to a simplistic step through use of UHF (not infrared) remote control. Here is the basic formula:

- 1) Dehnert wanted a TVRO receiver which would remember every important (and several unimportant) parameter about every channel on every satellite; present birds and future birds.
- 2) The SR-3 **remembers** channels, bird locations, polarization, skew or skew-offset, audio format (discrete,



SR-3 MEMORY displays pre-set receiver functions for any channel at touch of key. Display shuts down automatically in 15 seconds or less.

matrix or mono), audio band-width, audio filtering, and even audio 'level.' It also remembers which channels have been locked out (a channel by channel selection process on any bird).

- 3) The SR-3 uses quartz-synthesized tuning but with a clever twist for handling TI (terrestrial interference). It uses a saw filter in the IF but retains a wide (31 MHz) bandwidth so every possible bit of picture detail and definition comes through.

And there is much more, as we shall see. But this might be a good place to jump off into the headaches of the installer since he has to make all of this work, and worry about when it does not work. USS, perhaps because Dehnert himself has installed well over 1,000 TVRO systems with his own two hands (and those of number-one assistant Polly), is more conscious of dealer problems than many OEM heads.

- A) The SR-3 not only remembers, but if the power glitches and snaps which normally causes a receiver to forget everything it knows, the SR-3 keeps right on remembering. For up to 120 days.
- B) The receiver comes out of the box with most of the memory already in place. The dealer has very little additional information to add with the hand held UHF remote or the 'kangaroo pouch' hidden controls behind the front panel hidden door. In effect, find the Clarke Orbit Belt and then set the east and west limits. The majority of the balance is already 'in place,' in memory, ready to demonstrate to the consumer.
- C) The SR-3 is virtually self testing, including an antenna

SR-3 TECHNICAL SPECS

Front End:

LNB feed mounted: CPR-229 flange, external test point

Input Frequency: 3.7 to 4.2 GHz

Output Frequency: 950-1450 MHz

Gain: 60 dB typical

Noise Temperature: 65 to 90 K available

Indoors:

Input Frequency: 950-1450 MHz

Input Level: -40 dBm to 0 dBm

IF Bandwidth: 31 MHz with saw filter

Clamping: Greater than 45 dB

Filtering For TI: 400 MHz IF loop-out connectors

Outputs:

RF/ Channel 3, 4, 5 or 6 at +12 dBmV

Baseband Out: (Unclamped, unfiltered NTSC for de-scrambler)

Video Out: 1 volt peak to peak, for monitor or VCR or modulator

Audio Out: Right out, left out (mono out from either in mono mode), 600 ohms unbalanced at 0 dBm

Baseband Connectors: RCA female

Polarization Controls/Interconnects:

Ground, pulse, +5VDC connections (5 volts pot adjustable)

Actuator Interconnects:

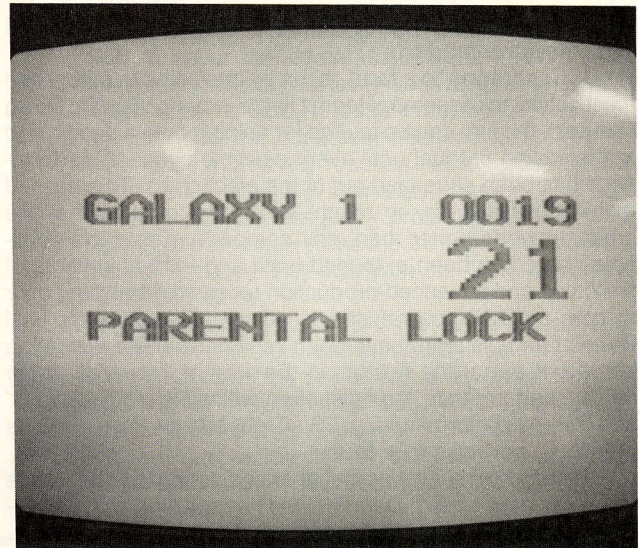
Motor and sensor terminal connections

Handheld UHF remote: (500 MHz)

Full control over parental lock, audio tuning, audio bandwidth, audio mode, satellite location, channel up and channel down plus volume up and down, noise reduction selection, on-screen display and power on and off.

Pricing: \$995.00 with typical 85 degree (K) LNB unit and UHF remote control

Source: USS/United Satellite Systems, St. Hilaire, Minnesota 56754; 218/681-5616.



NOT TONIGHT JOSEPHINE/ Attempts to access a 'locked out channel' reminds underaged viewers that they can't gain access to channel. Three stroke 'secret code' puts channel into lock-out.

mounted LNB test point where the installer plugs in a VOM or DVM and peaks for signal max without hauling elaborate test equipment (or the receiver proper) out of doors.

Everything important, Dehnert believes, is on screen. The on-screen display comes into operation whenever the user issues a command with the UHF (radio) remote control. Since the UHF remote control plows through walls and floors of a building, the old problem associated with infrared remotes requiring external sensors located in each TV viewing room and hundreds of feet of inter-connecting cable is eliminated.

- 1) The user merely soft-touches the keypad for transponder and satellite. The SR-3, if this is a satellite 'run' command, turns the screen into a colored graphic display and mutes the audio. On the screen, the user sees a tabulation of the pre-set and memorized data points for that transponder. Say we key in TR24, F1R.

The satellite identification (which contains all letters and numbers as well as common punctuation marks in common use) pops up in a **user selected color**. Right below it, in large numbers, is the transponder number. And below that a set of one-liners:

- 2) The **audio format** stored in memory (mono shown here) as well as the audio tuning for the 'A' and 'B' audio tuners (6.80 shown here);
- 3) The **audio filtering** (NR indicating noise reduction 'on' shown here), and the audio bandwidth ('BW' is 'W' for wide shown here);
- 4) The **volume setting** which has also been memorized (05, a number that simply increases with loudness).

While this display is 'up' the dish is moving, the receiver is changing to the selected transponder (24), the polarization is setting itself from memory (including any strange 'skewing'). When the receiver is satisfied it has acquired the desired bird and transponder, the colored background on the screen fades away to be replaced by the video from the chosen transponder; and the audio snaps on at the pre-set and memorized volume level. Oh yes, the pre-set volume level is the **last** volume control setting you entered when last watching that

same transponder; even if days, weeks or months prior.

To these operational features and selling points, we must also note that USS, which for all practical purposes 'invented' the LNB concept with full remote control, has made this a full **block downconversion** package so that an unlimited number of receivers can play (each with an individual UHF remote control if they wish) from the same antenna. We should also note that the 31 MHz wide bandwidth receiver operates with the unique-to-Maspro 400 MHz phased locked loop demodulator circuit which was created in the earlier released SR-2D receiver previously reviewed in CSD. The video quality is, the result of these design decisions, the highest definition video in the marketplace today. Dehnert has refined the 400 MHz demodulator circuit so that there is a very minimal trade-off in receiver sensitivity, in spite of the wider-than-normal 31 MHz bandwidth. **In actual tests**, only the COSMOS-II receiver has a superior signal to noise ratio (sensitivity factor) and that is at the sacrifice of significant bandwidth with the COSMOS unit (see **CSD, February 1985**). The sensitivity difference between the two is **very slight** and even at that, the SR-3 is well above the next-best 'also ran' receiver. One thing they have proven with the design is that you don't need to chop away at the bandwidth, giving up picture detail and quality with each bandwidth reduction, to gain superior receiver sensitivity.

WHAT We Have Here...

Overall, the SR-3 is not only amongst the 'Best Of Japan' for features, it is significantly better than the best of America in performance. Even the audio has been 'detailed' with great care, a positive effect of the design and release in 1984 of the stand alone audio subcarrier demodulator, the **SPP-1** from USS/Maspro. You can step through the full range of wide and narrow band audio subcarriers with memorized ease and find sound as brilliant as the picture at each stop.

TECHNICAL Considerations

The accompanying table lists the primary technical or design features of the SR-3. USS plus Maspro are on newly plowed ground across a significant part of these specifications even down to the Oak Orion and M/A-Com 'compatible' approach to providing total interface to descrambler equipment. A TI 'loop' on the rear panel, allowing direct access to the 400 MHz IF signal internal to the receiver, provides for installation of an accessory ± 10 MHz filter or trap system.

AND Price

Obviously a receiver that comes with a UHF remote control package (operating in 500 MHz range), its own LNB (down to 65 degrees K available), total actuator control, BDC sharing and on-screen display plus hundreds and hundreds of pre-memorized (but field changeable) memory functions costs big dollars. **Obviously this is a receiver** which can only be sold to top end customers for top end dollars. The price?

\$995.00 with the UHF remote and a (typically) 85 degree LNB.

All of which suggests that while our focus for three issues has been on Japanese receivers supplier/creators with tremendous high volume production capabilities and resources second to few, there is 'another side' to the Japanese 'Best Of...' story as well. When a talented Japanese engineering and production firm with a long-term view to TVRO teams up with an American entrepreneur who refuses to accept second-best as good enough, it is a very difficult combination to beat. Alas, Uniden, DX and Panasonic probably

TVRO BUSINESS INVESTMENT OPPORTUNITIES



offered by West Indies Video Associates, Ltd.

FLORIDA DEALERSHIP/ Central Florida TVRO dealership, established 5 years, in rural area with minimal competition, good reputation. Trained installers operate under contract, extensive inventory, truck, tools, technician test bench, test dish, open account with major manufacturers. Repeat and referral customers, steady income, good margins. **Owner will finance selling price of \$100,000 with \$20,000 down** over 5 year term with APR of 12% and teach new owner. Excellent 'turn-key' opportunity for husband/wife team to step into established, profitable TVRO dealership where you can make installs 12 months a year and never worry about snow! Talk with Carol Graba.

NATIONAL RECEIVER OEM/ Major receiver supplier with estimated 6.0% market share and highly unique receiver design with no serious design competitors. 12 month sales ending 5/31/85 \$5,239,000 representing 148% growth over 12 prior months. Taxable income nearly \$1.5M for same 12 month period representing 105% increase over prior 12 months. Estimated taxable income 12 months ending 12/31/85 \$2.5M. Firm averages 125 employees in highly desirable portion of USA with hourly assembler wage average of \$4.25 per hour. Sound, established management and excellent distribution network. Innovative next generation receiver(s) and accessory equipment designed and ready for 1986 introduction. Unique, proven, transmit product line designed and in proto-type production. Purchaser will be buying out four existing stockholders owning 100% of stock; present stock-owning management agreeable to contract stay-on for period of time. Negotiable partial stock purchase possible with **selling price of \$6,000,000** for total purchase. Detailed study on firm available to qualified buyers/investors willing to sign non-disclosure agreement only. Contact Carol Graba.

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have little to worry about however since USS's Dehnert remains firmly committed to his own concept that every receiver arriving from Japan must be totally bench tested before shipment and burned in long enough to catch any production problems created in Japan. This, plus his decision to keep his receivers in 'tight supply,' will never create a threat to the 40,000 plus months reported by Uniden these days. **But for those handful of dealers** who have 'discovered' the excellence of the SR-3, and the fact that not every dealer in their neighborhood can offer this receiver, there is a smug satisfaction that goes with knowing that they have a unique product to sell which nobody else can touch.

NOTE: In CSD/2 for August 15th, we reviewed the Panasonic C-2000 receiver. Panasonic has taken exception to our statement that their 600 ohm unbalanced audio output is 'adequate to drive VCR tape decks but may require external matching for many audio amplifier systems.' This of course depends upon the **input impedance** of the audio amplifier, as well as the sensitivity of the input circuit for the audio amplifier. A 600 ohm, unbalanced audio output is now very standard with most TVRO receivers and those dealers designing systems with connections to external audio (hi-fi) systems should be advised that a mis-match between the **audio output** of the TVRO receiver and the **input to the audio system** will create 'signal voltage loss' which some hi-fi systems cannot compensate for without introducing noise in the audio.

PRODUCTS/ continues from page 6

to assist dealers with troublesome products ranging from receivers and actuators to SMATV and MATV systems. Mid-Tec is also offering service contracts for system packages.

MISAT SATELLITE CORPORATION (2000 Barnes St., Penticon, BC V2A 4C3, Canada; 604/492-7168) is now offering the complete line of Phantom Engineering filters. In stock are the IFP1X and IFP134 filters for small dish and light terrestrial interference situations as well as the SF-70 'super filter' for tough TI situations.

SatNET/ International Satellite Distributor Association (ISDA) 202 North Main, Culver, Indiana 46511; 219/842-3105) has appointed **James C. Johnston** as Executive Director. Johnston has 20 years of consumer electronics marketing experience and will be concentrating on developing long range planning and goals for the oldest association of earth station distributors. ISDA will be increasing its membership rolls in the near future and actively participating in a series of seminars and trade shows.

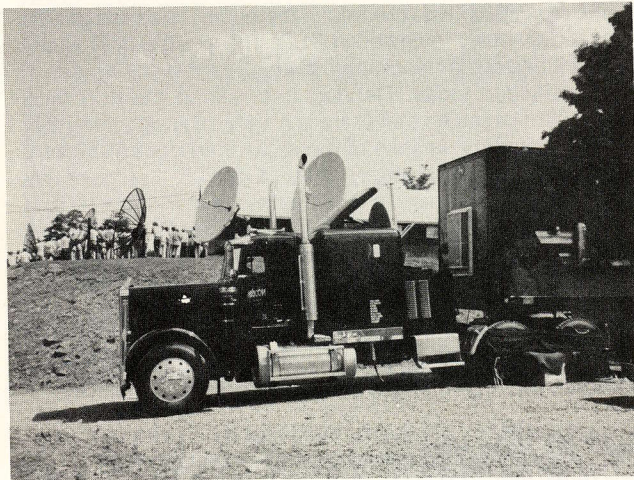
MICROTECH WEST, INC. of Grand Junction, Colorado has become the 19th member of SatNet/ISDA. The firm services dealer accounts in Colorado, Utah, New Mexico, Arizona and the panhandle of Texas.

SATELLITE RECEPTION SYSTEMS (145 Columbus Road, Athens, Ohio 45701; 800/592-1956 nationally and 800/592-1957 within Ohio) has continued their series of technical seminars for TVRO dealers with recent events in Michigan, Pennsylvania and Ohio. Details of the new SRS 5 year extended warranty program have also been revealed to dealers. Technical representatives from M/A-Com have been appearing at recent SRS events to explain the firm's line of TVRO systems.

SATELLITE VIDEO SERVICES (RR #1, Box 85-S, Paul Saxe Rd., Catskill, New York 12414; 518/678-9581) will be sponsoring full day seminars featuring the M/A-Com \$500,000 'show van' during November. The dates are November 14 at SVS in Altoona, Pennsylvania, November 16 at SVS in Hornell, NY and November 18 for SVS in Catskill, NY. Dealers attending will be able to learn about SMATV system design, multiple receiver hook-ups featuring the T1 and H1 receivers as well as view how cable and antenna products are manufactured by the firm. SVS will serve a luncheon to dealers attending but dealers should pre-register in advance (Altoona: 814/942-5003 or 800/242-3860 within Pennsylvania; Hornell: 607/324-3435 or 800/641-0018 within New York; Catskill: 800/528-DISH national or 800/

831-DISH within New York.)

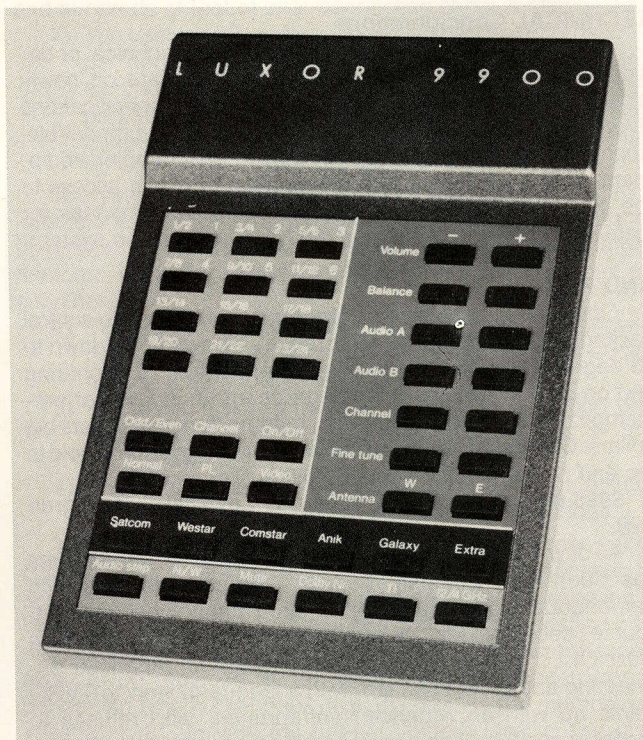
Satellite Video Services has also put the 'SVS Express' into operation providing door to door shipment by SVS truck for dealers. In a related development, SVS is consolidating their sales and marketing through the recent appointment of **Donald D. Doney, Jr.** as VP of sales and marketing. SVS also announces that PenTec/MTI and Norsat International are now supplying products to the firm. Dealers interested in attending SPACE certification classes October 25/26 and 27 should contact Michelle Miszczak at SVS (518/678-9581).



\$500,000 SHOW VAN Appearing at SVS

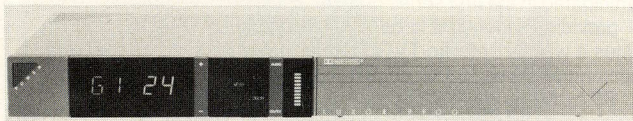
RECEIVER RELATED Releases

LUXOR NORTH AMERICA CORP. (600 108th Ave. NE, Suite 539, Bellevue, Washington 98004; 206/451-4414) has demonstrated their latest C plus Ku band TVRO system. Dubbed 'The Intelligent Satellite TV System', model 9900 is a block satellite receiver with programmable recall of 36 satellite locations and as many as 864



LUXOR 9900 Remote Control

channels. The package also includes a companion actuator interface, remote control and remote sensor, stereo loudspeakers from the Luxor sound division and a series of low noise block downconverters. Luxor considers the new package to be the most innovative TVRO receiver system in the marketplace today combining a series of features which greatly simplify satellite TV system operation while at the same time offering sufficient features to appeal to the most advanced video or audiophile consumer. The system includes something called 'Micro Step'™ Tuning (LMS) which automatically 'seeks' the correct signal for a given transponder. The receiver automatically compensates for frequency drift at either the receiver or the satellite. The receiver has five different audio modes available and is factory programmed for each transponder on each satellite for automatic program delivery to the customer by the dealer. The receiver has a built-in 'programmable' TI filter to allow the dealer to select TI filtering where and when needed without additional accessory equipment.



SLIM STYLING For Luxor 9900

PenTec ENTERPRISES, INC. (Salt Lake City, Utah 84119; 800/521-7330) is offering their new 'Alpha Receiver' and 'Omega Positioner'. The receiver has crystal synthesized tuning, matrix and direct stereo audio, direct channel access, automatic polarization control and uses block downconversion with an infrared remote control system.

RAYDX SATELLITE SYSTEMS, INC. (9 Oak Drive, Silver Springs Shores Industrial Park, Ocala, Florida 32678; 904/687-2003) used the Nashville show to introduce a considerable amount of 'new technology' in their RX-1 satellite receiver. Using an unusual design approach, two or more receiver/demodulator units can be used with the same antenna without using block downconversion techniques. Raydx has refined the art of single conversion, mounting the majority of the receiver system at the antenna proper. The receiver system is microprocessor controlled and quartz synthesized for stability. Infrared remote control is also available as an option. Additionally, Raydx has developed a matching antenna positioner: 'The Director'. This unit has automatic antenna polarity adjustment, parental lockout, built-in limit switches and a pulse directed reed switch output system. Completing the package is a new horizon to horizon mount for their antenna products which creates 1,500 pounds of torque for antenna movement.

UNIDEN CORPORATION OF AMERICA (6345 Castleway Court, Indianapolis, Indiana 46250; 317/842-0280) demonstrated its new (UST 524) horizontal/vertical splitter in Nashville. The unit splits the available signals from a pair of LNAs (one for each polarity) and provides automatic switching for each of up to four (separate) TVRO receivers connected to the single antenna. Thus the UST 524 becomes a miniature SMATV 'hub center' to allow up to four TVRO receivers to independently select between either polarization source from the same satellite. Suggested consumer price for the 524 is \$170.



UST 524 IS Miniature SMATV System Control Hub

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PRODUCT Advances

CHANNEL MASTER CORP. (P.O. Box 1416, Smithfield, NC 27577; 919/934-9711) has added a programmable 'Satscan'™ antenna controller system to their antenna product line-up. The controller package uses a keypad entry to activate the drive which uses a 36 VDC motor protected with an expandable jack sleeve and motor boot. Limits are built into the system to prevent damage to the drive. Model 6524 'Programmable Satscan' has a user net price of \$649.95 through Channel Master distributors nationwide.

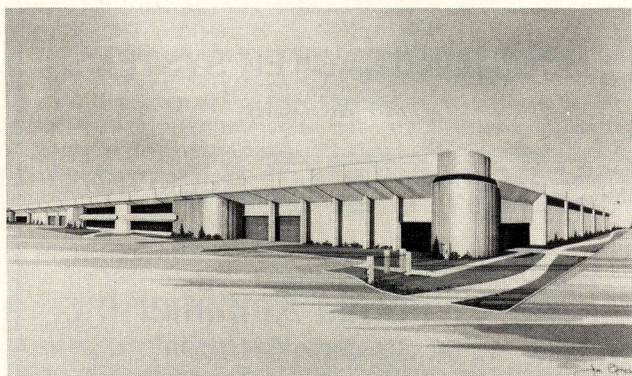
SAGINAW DIVISION OF GMC (3900 E. Holland Drive, Saginaw, Michigan 48605; 517/776-4123) has added new features to their model HiTec 90 + ® antenna positioner to increase the performance and durability of the unit. The unit now has full ventilation to inhibit moisture created corrosion, an inner shaft protected by a vented boot and full shaft, gear chamber and sensor chamber venting. The unit is available with either ball-screw or Acme-screw and with either Hall-effect or potentiometer sensors. The motor and gear box are fully dealer serviceable.

SUPERWINCH, INC. (Winch Drive, Putnam, Ct. 06260; 203/928-7787) reports that as a result of its \$50 Cash Rebate program (dealers receive a check for \$50 if there is a product failure of a Superwinch unit), sales are up by more than 50% and only a single Superwinch actuator has been returned to the factory for replacement/repair since the program kicked off in June.

VIEWSTAR, INC. (55 Milner Avenue, Scarborough, Ontario, Canada M1S 3P6; 416/298-9919) reports it has obtained 'Class 1 Approval' for both UL/Underwriter Labs and CSA (Canadian equivalent of UL) for its VSS 1410 power supply. The 1410 unit operates the firm's motor drive actuator and Viewstar believes it is the first firm to obtain such approval for an actuator supply product. Viewstar also has CSA and UL approval for their 1450 receiver.

OF DEALER Interest

BOMAN INDUSTRIES, INC. has been granted approval by the City of Cerritos (Ca.) for plans to develop a 'Boman Technology Park', consisting of 125,000 square feet of building space situated on a 5.5 acre site.

**BOMAN's Industrial Park**

BROOKS SATELLITE, INC. has begun 'converting' existing TVRO dealers to Brooks franchise stores. In the Chicago area, Robert McMahon has agreed to become a Brooks store. In Fort Myers, Florida, Russell Swallow has agreed to purchase an existing Brooks' owned company store.

ETA/The Professional Electronics Technicians Association within the state of Indiana has held another TVRO technician school. The schools are held several times per year to prepare Indiana TVRO dealers for passing of the mandatory state exam required of TVRO installers in Indiana. The two-day workshops are usually held at the ITT Technical Institute in Indianapolis and Indiana dealers may inquire of the next scheduled session by calling 317/653-3849.

EUROPEAN dealers can plan to attend the EUROCAST 86 exhibition and conference scheduled for February 11-13 (1986) in Basel, Switzerland. The conference will include cable television, SMATV and satellite seminars as well as technology exhibits in all

fields. Information from Terry Rozario, Eurocast 86, 3 Barratt Way, Tudor Road, Harrow, Middlesex, HA3 5QG, England (01-861/4877).

INTERLACE COMMUNICATIONS and consultant Ed Eagan who manages the Central Florida Teleport near Ocala, Florida have worked out an agreement to provide 24 hour satellite time for audio only services on TR2 of Westar 3. The transponder 2 system is being configured to handle as many as 100 separate audio only customers. Information from 904/237-6106.

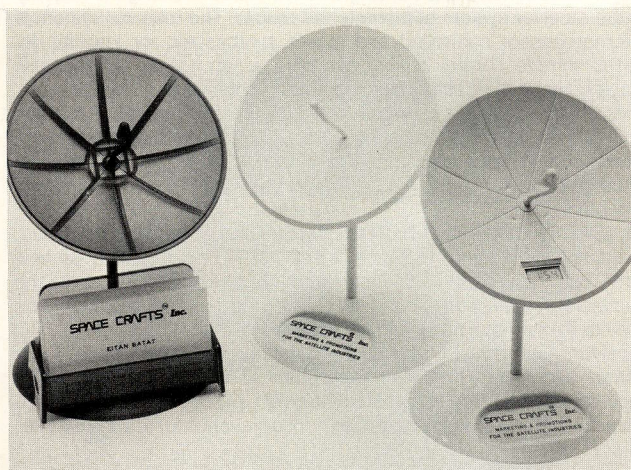
NORSAT INTERNATIONAL is supplying 5,000 LNB units to the Conifer Corporation (Burlington, Iowa) and 10,700 model 300S TVRO receivers to MTI/Pentec. Norsat is a major supplier of receiver and LNB products for private labeling in North America. Norsat was recently recognized as the 'fastest growing company in British Columbia' with an annual growth in 1984 of 3695%. Norsat projects sales of \$36M during 1985. The Norsat telephone number is 604/591-3334.

NOVA VIDEO PRODUCTIONS of Richland Center, Wisconsin participated in the first series of SPACE 'Dealer Certification Courses' by providing videotape production services to SPACE. Nova produces a weekly satellite TVRO dealer program seen on Satcom F4, transponder 5, at 10 PM each Tuesday.

SPACE reports their first downlinking of certification courses was a successful venture and an additional set of 'classes by satellite' are scheduled for October 25, 26 and 27. 'Satellite Antenna Installations', 'How To Market The Satellite Reception System' and 'How To Start And Run A Small Business For Profit' will be offered in October; details from Maureen Jones at 703/549-6990 (SPACE, 300 N. Washington Street, Alexandria, Virginia 22314).

CHICO STATE UNIVERSITY, Chico, California is offering college credit courses to qualified dealers who are participating in the SPACE Dealer Certification Program. Ten classes are available and up to three college credits can be earned in the program.

SPACE CRAFTS, INC. (Suite 202, 4270 Main Street, Bridgeport, Ct. 06606; 203/372-8810) has added a trio of new 'satellite system models' to its line of sales and display aids. The new models are replicas of mesh, fiberglass and decagon antennas with or without company imprinting and with or without digital clock/calendars.

**SPACE CRAFTS 'crafts' Displays**

UNIDEN CORPORATION OF AMERICA has moved **Bill Stark** from marketing coordinator to 'Manager of Marketing Services'. Stark is now responsible for Uniden's trade show, merchandising, sales literature and dealer promotional activities. Other new appointments include Mark Brady as Eastern Regional Sales Manager, Andrew Saban as Midwestern Sales Manager.

THE YOUNG ASTRONAUT PROGRAM is selecting a pair of youngsters to appear in an ABC motion picture titled 'SPACECAMP' to be released in 1986. During this past summer 50 youths attending the United States Space Camp at Huntsville, Alabama simulated a five day mission in space using the life-like facilities of the Huntsville facility. YAP's telephone number is 202/682-1985.

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CALENDAR/Through October 31st

Television/Audio:

A nightly satellite related audio-only program, 'FM-America', is heard on Telstar 303 (125 west), TR29, 9PM to 12 midnight eastern on a 6.2 MHz subcarrier. Video specials are aired at 9PM Sundays on the same transponder.

TUESDAYS:

Satellite Showtime airs at 10PM eastern time each Tuesday on SATCOM F4, TR5. This one-hour weekly program features news and reports of the satellite TVRO industry.

THURSDAYS:

BORESIGHT TVRO Program airs each Thursday night at 9PM eastern, SATCOM F4, TR20. This program is a combination of news reports and features dealing with TVRO use.

EVENTS/

- September 18/20: Atlantic Cable Show, Atlantic City, NJ; contact 609/848-1000.
- September 21/24: Intelvent '85, Cannes, France. Within USA, contact 202/857-4612.
- September 25/27: Great Lakes Cable Expo, Indianapolis. Contact 614/461-4014.
- September 26/28: EIA International Communications Show and Conference, Washington, DC. Contact 202/457-8765.
- October 11/13: **Eastern Home Electronics Satellite Dish and Video Expo**, Orange County Convention and Civic Center, Orlando, Florida. (Regional **TVRO trade show** with emphasis as well on Caribbean area reception problems.) Call 602/581-0188 for information.
- October 15/16: **Blonder Tongue TVRO/SMAT/CATV Technical Seminar** Tampa, Florida. Contact 305/622-7555 or 813/953-9843.
- October 15/17: **Satellite Communications Users Conference**, New Orleans, La. Contact 303/694-1522.
- October 16/18: Videxpo '85, London. Contact (UK) 01-968-4567.
- October 25/27: **Second SPACE training-by-satellite** dealer certification classes. Available on scrambled transmission system, fee for participation. Contact SPACE at 703/549-6990.

MID-MONTH COMMENTS/ continues from page 3

\$35,000,000 in less than a year by just being 'off mark' with your planning. And raising \$35,000,000 or even \$3,500,000 to start one or more 'new services' for home TVRO didn't seem very practical. I don't even like banks and I deplore sitting in a musty room trying to 'sell' some monied types on putting bucks into a project I can't afford to fund alone.

Back to Steve Tolin. Given my present schedule of trying to cram 47 days of working and living into every 30 (or 31) day month, it was apparent that even finding time to 'think about' the problem of maintaining sufficient 'in-sky-service' operating to keep TVRO alive (growing, and well) was going to be impossible. I even have magazines stacked in my bathroom and I have learned to read while 'standing up'. Thirty words here, fifty words several hours later; I can 'read' **Multi-Channel News** or **Broadcasting** in 'spurts' just to stay 'current'. And that's the only way I can handle the volume of words that have to cross before my eyes each month. **Somehow**, I had to find a way to 'get back' at least ten days a month.

Thanks Steve Tolin; your awkward question pointed me

in the right direction.

Effective with this issue of CSD/2 there will be **no more issues of CSD/2**. **Effective with the October 1st** issue of CSD, there will be **no more CSD** on the first of the month. I know, that sounds like a pretty severe step.

In place of both there will be **CSD** (a familiar name) on the **15th** of the month; **a combined CSD and CSD/2**. It will be assembled and printed and distributed by Triple D, Incorporated. They are in Shelby, North Carolina (501 N. Washington Street, 28150; 704/482-9673) and **Doug Brown** and **Chris Schultheiss** and an amazing staff of nearly 50 turn out **On-Sat** (the industry's fastest growing program guide; weekly), **STV** (the industry's oldest 'consumer publication' and the 'big kid on the block' for TVSV and HSTV to emulate), and **Satellite Retailer** (a new publication, doing very well).

The 'combined' CSD will continue to be **my** responsibility to **write** each month; and **plan**, and **think** out. No change in content, direction, 'flavor', or my boring monologues.

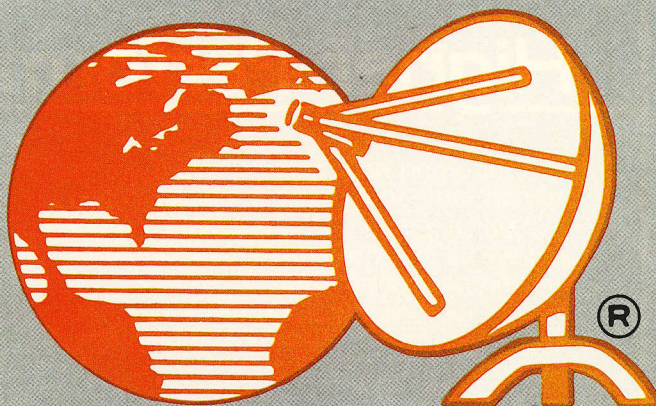
All of the production and final-form-creation will take place in North Carolina. I will still retain my mailing address (**P.O. Box 100858, Fort Lauderdale, FL 33310**), my telephone number (**305/771-0505**), and Carol Graba. I will still be 100% responsible for the 544 page 1986 TVRO **HANDBOOK**. And I will immediately get ten days to two weeks 'back' in my life again so there will be 'time' to get serious about filling up the skies with programming which will replace all of those tired, old cable services as they scramble. I may even get the time to '**sit down**' and read Multi-Channel News and Broadcasting each week now.

There are a couple of thousand readers of CSD/2 **who don't receive CSD**. We've been giving these **CSD/2** copies away to SPACE dealer members for several years now. You know who you are and why you haven't bothered to subscribe like you always intended to do. There is a form on page 7 here in this 'last issue; **and if you hurry**, you'll get it in so you continue to receive CSD on the 15th of each month (only now you'll get the combined CSD and CSD/2). Yes, it will cost you a few dollars per month. Big deal; I've been taking \$2.00 (and up) out of **my own pocket each month** for years now sending **you** a **FREE** copy of CSD/2. The least you can do is support yourself for a change. If I am going to save your business for you by figuring out how to get a bunch of new 'free', **forever-unsrambled** programming up in the air over the next several years, the least you can do is show your gratitude by paying for CSD like several thousand others do each year.

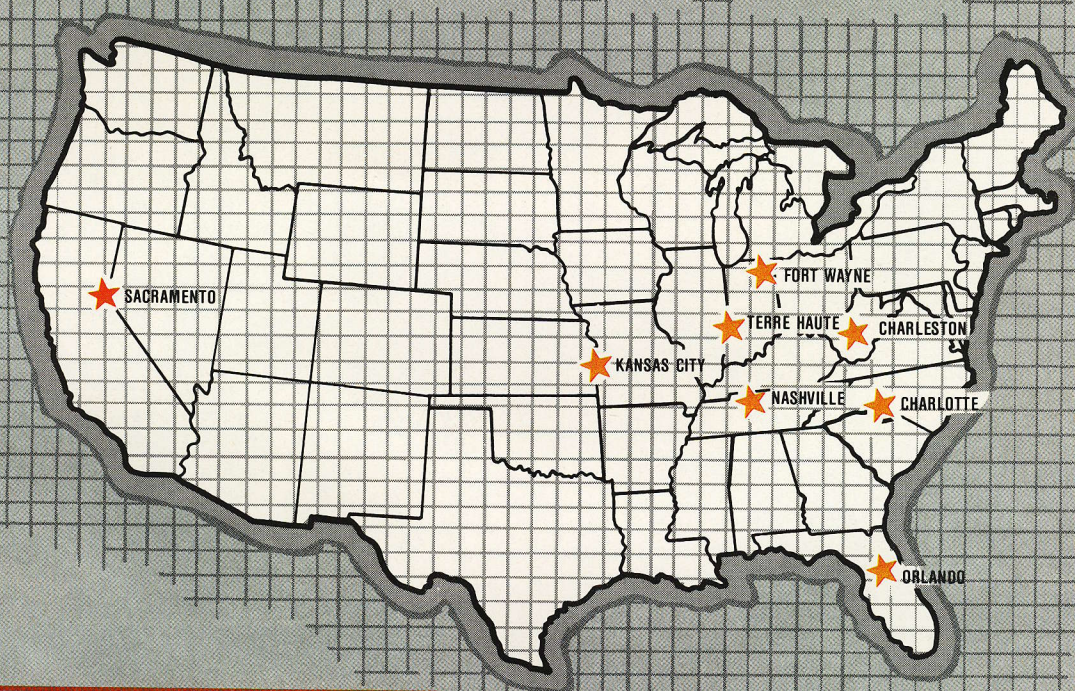
'TVRO Software' (i.e. programming) is coming. I predict it will be the next big 'explosion' in TVRO and some very clever people (probably even more clever than me and I had to be pretty clever to think up the industry that now supports you so nicely) are working on it. Programming like **Boresight** and **Satellite Showcase** won't sell a **single terminal** for you; but out there someplace is the right blend of entertainment, excitement, education (why does everyone 'duck' when you say 'education?') and 'energy' to make owning a TVRO terribly attractive, **even if M/A-Com** and the rest do 'screw up' TVRO as we have learned to know it. I'm on a pilgrimage to find that 'right blend' and with your help we'll all survive and be the better for the experience.

See you on October 15th, as we launch year seven of CSD and our industry!

8



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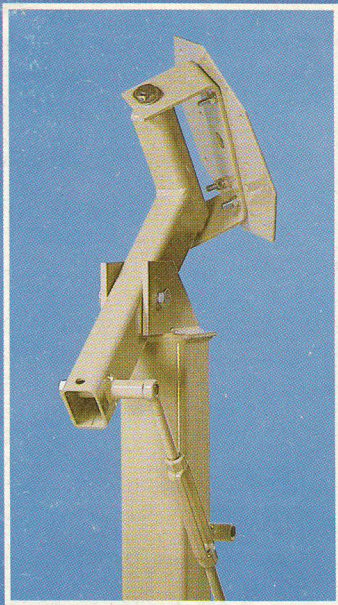
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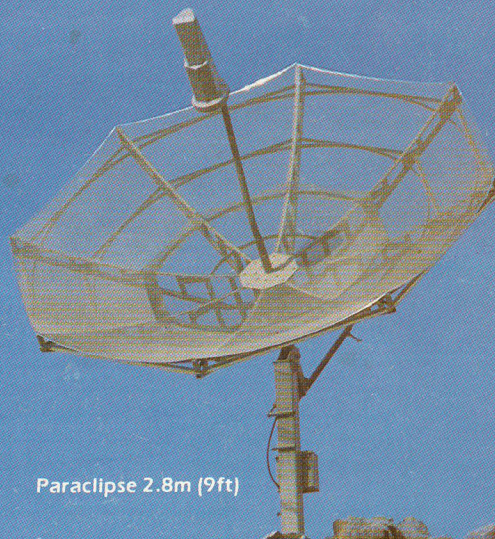
Our brand new polar "T" configuration means greater strength and an increase in polar tracking precision.

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The net result is a stronger more precise antenna. After all, higher performance is why you buy Paracclipse.



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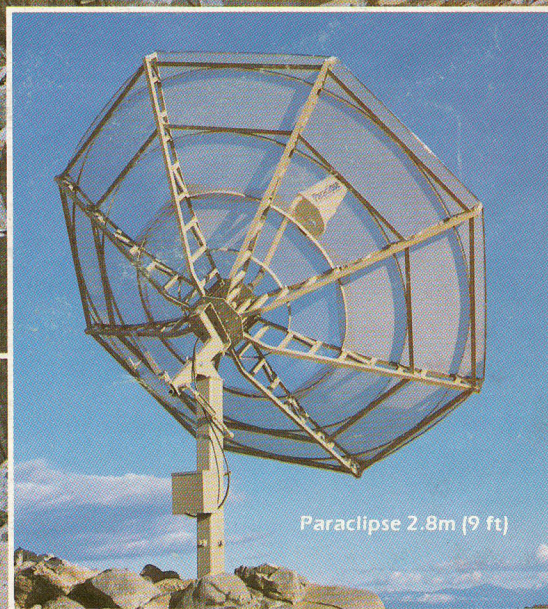
Paracclipse 2.8m (9ft)

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Paracclipse 2.8m (9 ft)

Mark Fator photographer